

Supplementary file 1. Characteristics of included studies

First author/ year	Purpose	Theoretical framework	Study Design/ Method	Sample/ Setting	Description of facilitation role/characteristics/process and/or intervention
Aagaard 2010[1]	To identify and evaluate organizational effect modifiers (OEMs) that might explain the variability observed in the implementation of and response to the IMPAACT (improving antibiotic use in acute care treatment) interventions across sites (previously reported).	Predisposing, Reinforcing and Enabling Constructs in Educational Diagnosis and Evaluation (PRECEDE) model of change (used in intervention study they describe).	Qualitative. Focus groups; interviews.	Nurses and emergency department staff, local project leaders, nurse managers, and quality improvement officers. 7 emergency departments (hospitals). USA.	Local Project Leaders/Opinion Leaders/Physician champions. Local project leaders were trained by researchers.
Aberg 2009[2]	To improve patient safety, by proposing strategies to assist healthcare professionals in the area of rehabilitation to systematically improve the prevention of falls and fall injuries.	Fall prevention pyramid model.	Descriptive paper.	Healthcare professionals.	Facilitation can be internally and/or externally provided. Identification and promotion of local facilitation expertise is necessary for process continuity. Individual factors critical for facilitation success: flexibility; relevant experience and knowledge (e.g. regarding evidence-based practice and management of changes in the implementation process); good communication skills; credibility. Contextual factors that influence facilitation: reserved time; leadership support and recognition; management structures and resources; organizational culture. Depending on the local needs and circumstances, the facilitation activities may include education, clinical supervision, processes initiating reflection, identification and solving of problems.
Acolet 2011[3]	To assess whether an active strategy was more likely to lead to changes in policy and practice in preterm baby care than traditional information dissemination.	Not indicated.	Quantitative. Cluster randomised trial.	Hospitals n= 180 neonatal intensive care units, 87 were randomised into the active arm and 93 into the control arm Sample: Clinicians from units UK.	Control arm Dissemination of research report; slides; information about newborn care position statement. Active arm As above plus offer to become 'regional 'champion' (attend two workshops, support clinicians to implement research evidence regionally), or attend one workshop, promote implementation of research evidence locally.
Aitken 2011[4]	To describe a multi-dimensional evidence-based practice (EBP) program designed to incorporate evidence into practice to lead to sustainable improvement in patient care and ultimately patient outcomes.	Advancing Research and Clinical practice through close Collaboration (ARCC) model. The Iowa Model of Evidence Based Practice to Promote Quality Care.	Quantitative. Program implementation.	Hospital ICU Sample: N=more than 200 nursing staff Australia.	EBP champions- self-nominated and were generally experienced clinical staff who were team leaders on each shift. Development of this group of staff was through participation in EBP workshops, access to resources and support from the EBP mentors. The role of the EBP champions was to lead their peers in the implementation of the strategies.
Alkema 2006[5]	To describe the Community-Based Medication Management intervention as an example of translating an	PARIHS framework: Promoting Action on Research Implementation in	Descriptive paper.	N=1,235 nurses and social workers. Two large home healthcare agency sites	Facilitation was used to implement an evidence-based medication management intervention. Facilitation: Training sessions; site visits to monitor progress. Facilitator role (e.g., local staff, expert panel); Presence of facilitation team (team on site for meetings and phone consults).

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	EBP.	Health Services.		piloted this medication management intervention using a randomized control trial design to evaluate its efficacy in this setting. USA.	
Alleyne 2007[6]	To identify, create, and evaluate effective processes for collaborative working so that primary care nurses' capacity for clinical / managerial decision-making could be improved to enhance the quality of care.	Clinical Nursing Leadership Learning and Action Process (CLINLAP) model.	Qualitative. Action research; case study.	N=6 district nurses as co-researchers and 2 professional doctoral candidates as the main researchers. National Health Service. UK.	Executive coaching: provides leaders with the opportunity to develop knowledge and skills in specific content areas. Executive coaching is a practical, goal-focused form of personal one-to-one learning for busy executives (Hall et al. 1999, p. 39).[7] Executive co-coaching uses evidence-based management and leadership interventions. Evidence-based clinical nursing leadership. The blending of facilitation skills using executive co-coaching with management and leadership knowledge. The executive co-coach is an informed and experienced guide.
Ang 2010[8]	This project sought to determine local healthcare professionals' management of patients with cancer by: <ul style="list-style-type: none"> • Educating Registered Nurses on the importance of pain assessment • Ensuring that pain assessment in patients with cancer is performed according to the best available evidence • Monitoring compliance with the audit criteria. 	Not indicated.	Quantitative. Pre-post implementation audit strategy.	Hospital oncology ward. N=24 Registered Nurses. Singapore.	Champions: three Registered Nurses who are involved in direct care of patients were recruited as change champions to positively reinforce the new practice (best practice in pain management).
Ansari 2003[9]	To evaluate the effectiveness of two interventions to increase beta-blocker utilization in patients with chronic heart failure.	Not indicated.	Quantitative. Randomized controlled trial.	N=74 providers: general internists, cardiologists, and nurse practitioners (NPs). San Francisco Veterans Affairs Medical Center. USA.	Nurse facilitator. Patients' primary providers were randomized in a stratified design to 1 of 3 interventions: (1) control: provider education; (2) provider and patient notification: computerized provider reminders and patient letters advocating -blockers; and (3) nurse facilitator. A nurse facilitator was used for implementing a beta-blocker guideline in heart failure patients.

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Armson 2007[10]	To describe lessons learned from a practice-based small group learning program.	Practice-based learning circle.	Descriptive paper.	Family physicians. The program currently consists of more than 3,500 members comprising approximately 20% of the membership of the College of Family Physicians of Canada.	Peer facilitator role. The facilitator is selected by the group and trained in a 1.5-day workshop conducted by experienced facilitators. The facilitator focuses the discussion on real practice issues and encourages group to identify factors that assist or hinder implementation of new knowledge and skills into their individual practices. Follow-up facilitator training is offered regularly.
Armstrong 2007[11]	To present findings from an evaluation of a series of evidence- based health promotion resources commissioned by the Victorian Department of Human Services.	Not indicated.	Qualitative. Document and literature review, interviews, focus groups.	N=47 government policy officers, lead agencies, authors of the Evidence-Based Health Promotion Resources and practitioners. Victorian Department of Human Services. Australia.	Knowledge broker role: requires the cultivation of new professional roles and the development of collaborative mechanisms working across research-policy- practice boundaries. The knowledge broker provides the necessary human element of interaction, communication, mentoring, skills building and knowledge sharing required for effective evidence-based health promotion practice.
Ayieko 2011[12]	To develop and test a strategy to improve paediatric care in district hospitals in partnership with the Kenyan government.	Donabedian model.	Quantitative. Cluster randomized controlled trial.	Eight rural Kenyan district hospitals healthcare providers/pediatric teams. Africa.	Multifaceted intervention: evidence-based guidelines, training, job aides, local facilitation, supervision, and face-to-face feedback; n = 4 hospitals) and the remaining four to control intervention (guidelines, didactic training, job aides, and written feedback; n = 4 hospitals). Local nurse facilitator: promoting guideline use and on-site problem solving.
Bashir 2000[13]	To determine if a primary care facilitator can improve the recognition, management, and outcome of psychiatric illness presenting to general practitioners (GPs).	Not indicated.	Quantitative. Before and after intervention study.	Four large and 2 small practices were recruited to both arms of the study. GPs. Parkside Health Authority in London, England.	Facilitator Intervention: Use of a non-specialist facilitator; Six practices were visited over an 18-month period by a facilitator whose activities included providing guidelines and organising training initiatives. Six other practices acted as controls. Facilitator underwent a six-month training programme supervised by a consultant psychiatrist, including familiarization with evidence-based interventions from primary care psychiatric research. Facilitator role: forms a direct relationship with the primary care team members; encourages the assessment of current practice; offers resources to assist the process of change; promotes both teamwork within the practice and links with external providers of care. A range of strategies was employed, including: audit and feedback; provision of written materials; practice-based workshops.
Baskerville 2012[14]	This study was a systematic review with a quantitative synthesis of the literature examining the overall effect size of practice facilitation and possible moderating factors. The primary outcome was the	N/A	Systematic review/meta-analysis.	Primary care practices. Twenty-three studies contributed to the analysis for a total of 1,398 participating practices: 697 practice facilitation intervention and 701 control group	Practice facilitation= (Outreach facilitation): is a multifaceted approach that involves skilled individuals who enable others, through a range of intervention components and approaches, to address the challenges in implementing evidence-based care guidelines within the primary care settings.

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	change in evidence-based practice behavior calculated as a standardized mean difference.			practices.	
Bayley 2012[15]	To describe the barriers to implementation of evidence based recommendations (EBRs) for stroke rehabilitation experienced by nurses, occupational therapists, physical therapists, physicians and hospital managers and to discuss the implications for future attempts and increasing evidence use in rehabilitation.	Not indicated.	Mixed methods. Pilot implementation study; focus group.	79 rehabilitation professionals (23 occupational therapists, 17 physical therapists, 23 nurses and 16 directors/managers) participated in 21 focus groups of three to six participants each. Five Canadian stroke inpatient rehabilitation centers.	Local facilitator: All facilitators attended an initial change management workshop during which the best practice recommendations were reviewed. Facilitators developed a practice gap analysis by comparing each practice recommendation suggested in the EBRs to the current practice at their site. Facilitators received instructions from KT experts on evidence-based strategies for implementation of guidelines. The facilitators then developed an implementation plan and returned to their sites and for 6 months implemented the evidence-based recommendations.
Begley 2009[16]	To describe inter-professional learning in the context of teamwork and collaboration.	Not indicated.	Descriptive paper.	Inter-professional facilitator.	Facilitators should understand issues relating to practice in each health profession involved, have confidence to teach an inter-professional group; they must be well prepared and there should be ongoing support provided for this challenging role.
Belizan 2007[17]	This paper discusses qualitative findings and their implications for introducing and adapting evidence-based OB/GYN practice innovations to Latin American public hospital settings.	Based on theories of health behavior change, including the stages of-change transtheoretical model and organizational change.	Qualitative. Interviews and focus groups.	Interviews were conducted with 3 department heads and focus groups were conducted with 31 physicians and midwives. N=16 mid-level physicians and N=15 midwives from seven hospitals, and heads of three different hospitals OB/ GYN departments. Ten public hospitals in Argentina and Uruguay.	Facilitators received training in clinical guideline development and disseminated this information to others in their hospital. Personal visits from facilitators were scheduled with each physician and midwife on the perinatal service; facilitators were encouraged to provide additional opportunities for staff to observe and practice skills development. To keep facilitators motivated and active as program champions monthly meetings with regional project coordinators were added to the intervention protocol.

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Bender 2011[18]	This paper describes the Colorado Asthma Toolkit Program which was initiated to establish a method for improving asthma care by providing to primary care practices coaching, training, and support for (1) evidence-based asthma diagnosis and treatment, and (2) education and activation of patients toward effective self-management of their illness.	Not indicated.	Mixed methods. Intervention study; interviews.	2 academic medical institutions and the High Plains Research Network, a primary care practice-based research network in eastern Colorado. The program was introduced in 15 counties that include 58 primary care practices. Healthcare professionals: Across practices, 372 clinic team members were trained, including 87 physicians, 130 nurses, 19 physician assistants, 108 medical assistants, 11 practice managers, and 17 office staff. USA.	Coaching intervention. Practice coaches. Practice clinicians and staff received training in the management of asthma consistent with evidence-based guidelines and in the use and interpretation of spirometry for both acute and long-term assessment of control. Clinicians received 3 coaching sessions conducted by 2 nurses in the practice that included training in guideline-based methods for evaluation and treatment of asthma, coaching to assist practices in implementing these methods, and training in communication techniques to promote asthma self-management. Practice coaching occurred during the last 2 years of the program and was conducted by 2 licensed nurses who had extensive previous experience with asthma assessment and treatment. Each coach attended 5 training days. Practice training content was taught to the coaches, and coaches practiced lecture and discussion skills. The first in-practice coaching visit focused on asthma assessment and management. The second and third visits, lasting 4 hours each, were used to review and reinforce guidelines-based practice and to review individual cases.
Bloomfield 2005[19]	To develop and test an intervention designed to increase the rate of prescription of lipid modifying therapy: educational workshop, opinion leader influence and prompts (progress notes, patient letters, computer chart reminders).	Intervention was based on persuasive communication, diffusion of innovation, social influences, adult learning theory and social cognition.	Quantitative. Controlled before and after study.	N=92 healthcare providers N=11 US Department of Veterans Affairs Medical Centers. Five intervention sites and six matched control sites. USA.	Local opinion leaders. Intervention components: 1. Educational approach (written materials and educational workshop); A one hour interactive educational workshop tailored to each site and facilitated by a physician co-investigator was presented at each intervention site. 2. Opinion leader influence: All primary care providers within the intervention sites were surveyed in order to determine which colleagues they felt were most influential in their practice of medicine. The role of the opinion leaders was to encourage providers to increase their prescription of lipid therapy for the target patient population. 3. Prompts: patient letters, computer chart reminders, and progress notes.
Boaz 2011[20]	This overview of systematic reviews of the health literature on the effectiveness of currently used implementation methods in translating research findings in to practice provides a focused update of Grimshaw et al.'s 2001 review.[21]	N/A	Overview of systematic reviews.	Healthcare providers and patients. We identified 13 systematic reviews that met the inclusion criteria.	Opinion leaders. Numerous interventions were assessed including clinical guidelines, audit and feedback, continuing professional education, financial incentives, use of opinion leaders and multifaceted interventions. Multi-faceted interventions include more than one type of implementation strategy (including incentives, audit and feedback, educational strategies and reminders).

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Borbas 2000[22]	To describe the evolution in the use of significant opinion leaders.	Diffusion of innovation research (Rogers); adult learning theory; clinical opinion leader research.	Descriptive paper.	USA.	Clinical opinion leader role: Initially evaluate the nationally developed guidelines; help the project team understand gaps between the knowledge and practice of the target audience; Provide hospital-specific results to clinicians and staff at the individual hospitals; help engage and stimulate hospital clinicians and staff to act on this information and develop improvement strategies (p.29S).
Bornbaum 2015[23]	To systematically gather evidence regarding the nature of knowledge brokering in health-related settings and determine if knowledge brokers (KB's) effectively contribute to KT in these settings.	N/A	Systematic review.	N=29 articles representing 22 unique studies were reviewed.	KBs work collaboratively with stakeholders to facilitate the transfer and exchange of information in contextually diverse settings. KBs performed a diverse range of tasks across multiple health-related settings and sectors; KB role involves knowledge management, linkage and exchange, and capacity building tasks and activities. KBs serve as the catalyst for change in how stakeholders acquire, interpret, and apply information. Ten KB activities and tasks: identify, engage and connect with stakeholders; facilitate collaboration; identify and obtain relevant information; facilitate development of analytic and interpretive skills; create tailored knowledge products; project coordination; support communication and information sharing; network development, maintenance and facilitation; facilitate and evaluate change; support sustainability.
Branowicki 2001[24]	To describe the development of a clinical practice committee.	Not indicated.	Quantitative. Questionnaire.	N=36 Pediatric oncology and surgical services clinical practice committees. Children's Hospital Boston USA.	Nurse leader as facilitator. The facilitator should have an understanding of the nuances and intricacies of the program, be acquainted with long standing alliances and have a basic knowledge of the problems that have been experienced by the staff. The nurse leader is most likely candidate for the role of the facilitator because s/he possesses the detailed programmatic knowledge, historical perspective, and the clinical prowess needed to ensure that the perspectives of all members will be acknowledged. The facilitator must be organized.
Buonocore 2004[25]	This article is designed to assist all advanced practice nurses (APNs) in the development of the necessary skills to implement change and foster a research-based clinical practice environment.	Lewin's theory of change.	Descriptive paper.	Advanced practice nurses. USA.	Advanced practice nurses as change agent: The APN visibility is vital in the change process, to not only role model the change but to maintain the momentum and to encourage the staff in the process. The APN must acquire knowledge of the formal and informal organization in order to be an effective change leader. Modeling the way for the change in practice and coaching are important change agent qualities. By working with nurse managers, other APNs, nurses, and our physician colleagues, we can create environments that utilize the best practices in patient care and embrace change.
Byng 2004[26]	To determine the effects of Mental Health Link, a facilitation-based quality improvement (QI) programme to improve communication between the teams and systems of care within general practice.	Not indicated.	Quantitative. Randomized controlled trial.	N=335 patients N=96 GPs N=23 urban general practices and associated community mental health teams. London. England.	Three facilitators (trained researchers). The practices were randomised to receive the Mental Health Link intervention or to continue with usual service provision. Facilitation intervention: Facilitating decisions about shared care for long-term mental illness. The quality improvement intervention was delivered by three researchers; Researchers were trained in facilitation methods, and to follow a flexible protocol over three 3-hour sessions; facilitated joint working group meetings; support from the facilitators; Facilitators worked with the individual teams to help them make choices based on their own context, rather than imposing a new system from the outside.
Byron 2007[27]	To describe how a link nurse system for palliative care was established in primary care and report on an evaluation	Not indicated.	Mixed methods. Interviews, questionnaire,	N=17 link nurses to cover 21 district nursing bases; Primary care.	Nurse facilitators dedicated 3 days/week to develop the existing skills and knowledge of district nursing staff in relation to palliative care issues. Link nurse role (Palliative resource nurse): Disseminating information among colleagues, motivating colleagues, acting as role model and change agent, participating in audit and data

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	of the system undertaken as part of a larger evaluation of newly established Macmillian nurse facilitator posts.		observation.	Glasgow. UK.	collection.
Caine 1997[28]	This paper reports clinical directorate managers' perceptions of their responsibility for facilitating evidence-based practice (EBP), their nursing team's responsibility for integrating knowledge into practice, and the organizational constraints under which they must act.	Not indicated.	Qualitative. Interviews.	N=10 clinical directorate managers from two teaching hospitals in one Trust. UK.	Clinical directorate managers to facilitate evidence-based practice. Role of clinical directorate managers: Aiding nurses to overcome obstacles and ensuring organizational objectives, financial targets and quality standards were met within their directorates.
Campbell 2008[29]	To evaluate the effect of introducing nurse champions into an intensive care unit (ICU) on nurse compliance with ICU sepsis screening protocols and patient safety outcomes.	Donabedian's structure-process-outcome model and Roger's diffusion of innovation theory.	Quantitative. One group pretest=posttest quasi-experimental design.	N=6 nurse champions 16-bed ICU in a 352-bed regional referral center. USA.	Nurse champion intervention: Registered nurses already working in the ICU volunteered to serve as nurse champions (peers). The volunteer nurses attended 3 informational sessions offered by the agency's education department. These nurses were given an opportunity to review all components of the Keystone: ICU Sepsis Project and received instruction about the role and responsibilities of nurse champions. The education department administered a sepsis competency examination after the educational sessions. Champions take personal ownership in projects or ideas, remain well established among peers, and accept risk when introducing an innovation. Nurse champions must be creative, innovative, visionary and have the experience and ability to move through the healthcare system without difficulty; they must have the fiscal resources and allow for proper training and the designated authority to be effective in their role. Champions have the skills, knowledge and expertise to strongly influence patient outcomes. Nurse champions can be key resources for staff members at all skill and competency levels; facilitators of safe practice.
Catallo 2015[30]	To examine the competencies that nurse knowledge brokers should possess and the attributes associated with the role.	Not indicated.	Descriptive paper.	Registered nurses / Advanced practice nurses.	A nurse knowledge broker can support capacity development by facilitating the process of evidence informed decision-making (EIDM) within organizations. Nurse KBs have clinical expertise that s/he brings to the EIDM process, from question generation to the interpretation and application of evidence. KBs have networking skills and can cultivate relationships internally and externally and at different levels (e.g., staff, senior leaders, stakeholders, policymakers).
Chan 2001[31]	To evaluate the impact on drug prescriptions of a nurse facilitator in implementing guidelines for dyspepsia in primary care.	Not indicated.	Quantitative. Randomized controlled trial.	N=66 general practices; in the intervention group, a total of 109 general practitioners attended presentations by the nurse facilitator; 6 month follow up visit. Intervention and control groups. Primary care. UK.	Nurse facilitator intervention: control group received guidelines alone; intervention group received guidelines and two reinforcement visits by the nurse facilitator; the visit included a 1 hour postgraduate education allowance approved presentation on the guidelines with the aim of reinforcing key messages and for answering questions; an additional reinforcement visit was organized approximately 6 months later.

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Cheek 2004[32]	To explore factors influencing the implementation of best practice with respect to quality use of medicines (QUM) in residential aged-care facilities (RACFs).	Not indicated.	Qualitative. Interviews, focus groups, nominal groups, participatory action research.	N=12 residential aged-care facilities. Healthcare staff. Australia.	External Facilitators and Change agents. Managers were asked to identify key change agents from amongst their staff. Skilled facilitators managed workshop processes;
Christl 2011[33]	To present findings from a literature review that identified effective strategies for implementing guidelines in general practice.	N/A	Literature review.	Not indicated number of studies in review.	Common principles for the successful implementation of change included: - taking into account the complexity of the practice -adopting both a coordinated and collaborative approach and gaining the commitment of the entire target group • considering the specific characteristics of the innovations to be implemented and potential barriers to adoption • undertaking a sequential approach that resolves different problems at each step • basing strategies for change on available evidence • using an iterative approach to monitor progress and determining whether the intended changes are being achieved • assessing capacity, and • incorporating the implementation into the established structures for professional development and quality management. Facilitation can improve adherence to guidelines.
Chummun 2008[34]	To determine the extent to which clinical nursing practice has adopted research evidence.	Not indicated.	Literature review.	Consultant nurse.	Role of consultant nurse as facilitator for research use. "Consultant nurses provide professional advice to clients and colleagues, undertake research in his/her specialist area, provide education and training to more junior staff and students and ensure maintenance of clinical excellence as part of their professional responsibilities." Advanced academic knowledge supplemented by specialist training and several years of clinical experience. Consultant nurses should foster a research culture and facilitate research activities in junior staff such as encouraging and supporting them to undertake simple clinical audit, participate in collaborative research and making them members of a local research steering group. Leadership responsibilities; support staff with relevant knowledge and skill to read research with in-house staff development programs; introducing change in the organization in relation to factors perceived to hinder research application; providing quality leadership.
Clarkson 2009[35]	To describe evidence-based dentistry champions.	Not indicated.	Descriptive paper.	Dentists. UK.	An evidence-based dentistry champion: "Commits to improving the quality and effectiveness of dental care through the application of evidence-based principles and tools; commits to sharing knowledge and skills to provide EBD in practice, guiding colleagues, patients, and policy makers in the application of critical thinking skills and evidence-based decision making" (p.145). At the most basic level, being an evidence-based champion requires thinking about and furthering an understanding of the process and the challenges of evidence development, synthesis, and summary, the creation of best practice guidelines, as well as evidence implementation, in order to improve the quality, effectiveness, and appropriateness of dental care (p.145-146).
Crites 2002[36]	To present results of a novel course to train faculty in the	Not indicated.	Quantitative. Workshop;	N=7 clinicians and N=4 medical librarians.	Facilitators mediated the problem-centered, learner-focused, small-group process (PLS). A one day workshop using the PLS format to teach facilitation skills including role playing. Four small-

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	problem- centered learner-focused small group (PLS) process and to summarize its evaluation.		questionnaire.	Five small group sessions with two facilitators. USA.	group sessions were designed to emphasize and demonstrate the facilitation skills discussed in the first session. These four sessions followed the first four steps of the EBM process.
Cronje 2010[37]	The importance of social networks to the diffusion of innovations are reviewed in light of efforts to promote evidence-based practice (EBP) among nursing students and practicing nurses.	Rogers' diffusion of innovation.	Descriptive paper.	Nurses.	Opinion leaders. Students with extensive education in the principles and procedures of EBP may have the potential to influence practice settings with EBP skills that senior nurses lack. With their up-to-the-minute education in EBP, students and recent graduates are likely to be perceived as having the technical competence to find, appraise, and integrate evidence; thus they have the potential to serve as opinion leaders in communities of practicing nurses (p.25). To function as promoters of innovations, Rogers claimed that opinion leaders must have extensive interpersonal network links with their followers and must be socially accessible (p.26).
Damschroder 2009[38]	To explore the types and numbers of champions who lead efforts to implement best practices to prevent hospital acquired infection in US hospitals.	Not indicated.	Qualitative. Telephone interviews and site visits.	Phase 1: N=38 infection control practitioners (e.g., nurses, physicians) N=14 hospitals. USA.	Role of the 'champion' in infection prevention; A champion: People who played a major role in implementing a practice. Active champions directly shape organisational change through four critical functions: (1) protecting those involved in implementation from organisational rules and systems that may be barriers, (2) building organisational support for new practices, (3) facilitating the use of organisational resources for implementation and (4) facilitating growth of organisational coalitions in support of implementation. Champions were identified through consensus of the study team and were affirmed by two or more of the interviewees; motivated and enthusiastic about the practices they promote. More than one champion was needed when an improvement required people to change behaviours.
Davis 1997[39]	To recommend effective strategies for implementing clinical practice guidelines (CPGs).	Not indicated.	Systematic review.	Databases searched: Medline and the Research and Development Resource Base in Continuing Medical Education from 1990-1996.	Opinion leaders: educationally influential and respected clinicians identified by their own colleagues in the community as being respected clinicians and effective communicators" (p.410). Academic detailing/ educational outreach: "education of an individual by physician, pharmacist, or other healthcare professional, usually in the physician's office and most often in the area of prescribing" (p.410).
Davis 2000[40]	To describe the development and evaluation of a problem-based learning (PBL) intervention for osteoporosis. To make a formal evaluation of the impact and outcome of this program, using an objective structured clinical examination and standardized patient pre- and post-test assessment of participants.	Not indicated.	Quantitative. Intervention pretest/posttest.	Three pairs of rheumatologists and family physicians collaborated to 9 case scenarios that addressed the objectives. N=40 primary care physicians participated in the evaluation phase.	Trained facilitator (primary care physician). Family physicians participated in the workshop, developing best practice responses to the clinical scenarios with a trained facilitator and content expert. Participant and facilitator manuals were developed as the principal resource for a 2.5 hour practice based small group learning intervention, which was facilitated by a trained primary care physician.
DeBourgh 2001[41]	To highlight opportunities and suggests strategies for	Donabedian's structure, process,	Descriptive paper.	Advanced practice nurses.	APN roles as champions: APNs support EBP in the teaching role through role modeling clinical reasoning and expert practice through research use. Important role is to assist staff with framing

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	advanced practice nurses (APNs) to serve as catalysts for optimizing patient care through evidence-based practice (EBP).	outcome model.			clinical questions and helping them learn to access evidence to answer clinical questions. APN can promote research use by bedside care providers. Advanced practice nurses are ideally prepared and positioned within healthcare delivery systems to champion the integration of this practice as a model for evidence-based patient care.
de Cordova 2008[42]	To describe a program designed to teach students and clinicians how to utilize EBP to address important clinical questions and improve care delivery.	Conceptual framework identified by Straus, Richardson, Glasziou, and Haynes (2005).[43] This framework identifies (a) learners, (b) interventions implemented to teach EBP, and (c) outcomes that indicate the effectiveness of the methodologies used.	Quantitative. Intervention study.	Novice nursing students and educators. Columbia University School of Nursing partnered with Beth Israel Hospital and the New York University for Joint Diseases. USA.	Clinical scholars facilitated the implementation process by mentoring students through organizational resistances. These included encouraging staff to attend education sessions led by the students on the EBP topic selected and stimulating excitement among the unit's staff. Intervention: Phase 1, didactic classroom curriculum was presented to learners. Both clinicians and students attended a course entitled "Assessing Clinical Evidence" (ACE). The second phase involved implementing and evaluating the EBP practice change in the clinical units. Clinical scholars facilitated the implementation process by mentoring students through organizational resistances. Weekly e-mails and updates and scheduled monthly meetings were communicated to participants at the beginning of Phase 2.
De Luca 2008[44]	To present a new continuing medical education programme (CMEP) adopted for emergency health workers in the Lazio region of Italy to improve early diagnosis and referral of suspected stroke patients.	Not indicated.	Mixed methods. Interviews; education/ training.	N=324 people participated in the two types of training. N=15 professionals were interviewed using a questionnaire specific to their role. N= 63 emergency health operators. N=17 physicians N=46 nurses for the residential training. N=163 physicians and nurses. N=98 drivers and technicians employed by EDs for the on-site training and monitoring. Italy.	Coordinator/ facilitator training: Training involved a real case discussion followed by presenting (emergency critical pathway) ECP in lecture format. Participants were divided into groups and were asked to apply the ECP tools, comparing the new methodology with their daily practice. The facilitators participated in a teaching/learning session that taught them how to be group facilitators. The facilitators of the ECP groups were selected based on experience in education, leadership abilities, and work experience, and trained by the central team during the residential course. The coordinators of each EMS station were coached through all educational activities by some facilitators, selected and trained during the residential course. The coordinators/facilitators participated in a teaching/learning session that taught them how to be group facilitators.
Dickinson 2014[45]	To compare the effectiveness of three approaches for implementing the Chronic Care Model to improve diabetes care.	Complexity theory[46] Model for Improvement[47]	Quantitative. Cluster randomized controlled trial.	40 practices were enrolled. Community health centers and primary care practices. Clinicians and staff.	Three approaches for implementing the Chronic Care Model: (1) practice facilitation over 6 months using a reflective adaptive process (RAP) approach; (2) practice facilitation for up to 18 months using a continuous quality improvement (CQI) approach; and (3) providing self- directed (SD) practices with model information and resources, without facilitation. Practice facilitators received specific training in the use of change management strategies and participated in regular debriefing sessions with an experienced facilitation supervisory team to ensure fidelity to the

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				USA.	intervention process. Practice facilitators performed assessment of practice communication, change and work culture, and level of implementation of the Chronic Care Model, and provided feedback to the practice. "The facilitation intervention for this group lasted 6 months, with facilitators meeting with the improvement teams an average of 7.4 times (range, 4-11 times), although facilitators were available for consultation for up to 12 months after baseline." (p.10) "Traditional CQI interventions are effective at improving measures of the quality of diabetes care, but may not improve practice change and work culture. Short-term practice facilitation based on RAP principles produced less improvement in quality measures than CQI or SD interventions and also did not produce sustained improvements in practice culture." (p. 8)
Dilworth 2013[48]	To describe a mixed methods evaluation of becoming a best practice spotlight organization candidate.	Not indicated.	Mixed methods evaluation (survey, focus group).	Large urban public health unit Healthcare providers. Ontario, Canada.	Champions: An enthusiastic cadre of Champions were recruited from several program areas and disciplines. Each BPG team involved their champions in a variety of ways in the implementation of their BPG, from Champion meetings and updates to involving them in literature reviews or evaluation efforts. The Champion's primary responsibility was knowledge transfer and in being an "opinion leader" about their BPG.
Dobbins 2009a[49]	To describe the knowledge broker (KB) intervention that comprised one of 3 knowledge translation and exchange (KTE) interventions evaluated in a RCT.	Dobbins' framework for dissemination and utilization of research for healthcare policy and practice; Canadian Health Services Research Foundation (CHSRF) self-assessment tool.	Descriptive paper.	Public health departments. Canada.	Knowledge broker role: provides a link between research producers and end users by developing a mutual understanding of goals and cultures. A key attribute of the KB is their skill in the interpretation and application of research. KBs require superior interpersonal skills, communication skills, and motivational skills, expertise from both end users' and researchers' domains. A KB should be someone who is a skilled mediator and team builder while being flexible and diplomatic with excellent business and communication skills. KB intervention: One KB working in a full time equivalent position provided knowledge brokering services to all English speaking participants allocated to the KB group (n = 30). A second Francophone KB (0.2 full time equivalent) provided KB services to French speaking participants allocated to the KB group n = 6). Specific tasks conducted by the KB included: ensuring relevant research evidence related to healthy body weight promotion was transferred to the public health decision makers in ways that were most useful to them, and assisting them in translating that evidence into local practice.
Dobbins 2009b[50]	To evaluate the impact of 3 knowledge translation and exchange (KTE) strategies in promoting the incorporation of research evidence by public health decision makers into public health policies and programs related to healthy body weight promotion in children.	Dobbins' framework; Roger's theory of diffusion.	Quantitative. Randomized controlled trial.	Decision makers; public health workforce (public health nurses, nutritionists, physical activity experts, health promotion officers). Program managers/coordinators, program directors. 108 public health departments. Canada.	Knowledge broker role: facilitates knowledge and skill development either through face-to-face interaction such as workshops or online strategies such as webinars. Intervention was 3 KTE strategies: 1. Least interactive=health-evidence.ca 2. Moderately interactive=tailored, targeted messages plus access to health-evidence.ca 3. Most interactive=included first 2 strategies plus a knowledge broker who worked one on one with decision makers in the public health department. Specific tasks conducted by the knowledge broker (KB)= assist public health decision makers to develop skill and capacity for evidence-informed decision making, and assisting them in translating evidence into local practice.
Dogherty 2010[51]	To examine the current state of knowledge surrounding	Not indicated.	Literature review.	Search of nursing literature from 1996-	Facilitation is now being viewed as an individual role as well as a process involving individuals and groups. Multifaceted nature of facilitation. There is a range of skills for those engaging in

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	the concept of facilitation as a role and process in the implementation of research findings within the nursing context.			2008. There is a 2 year overlap (1996-1998) with Harvey's et al. review.[52] Papers were included if they contained an explicit focus on facilitation as a role or process in research use in nursing. Online databases searched were: CINAHL, EMBASE, Medline.	facilitation of research use. It involves change management at multiple levels. Qualities of effective facilitators are described although not formally evaluated. In implementation studies, facilitators may be given specific training. The characteristics and skills required depend on the strategies used to promote change and certain knowledge is needed to engage in facilitation. Selecting skills applicable to specific situations is what may be needed for effective facilitation. Recent literature describes facilitation as an intervention that includes coordinating and implementing other multifaceted interventions. Commonalities found across papers included five areas: 1. Increasing awareness of a need for change. 2. Leadership and project management. 3. Relationship-building and communication. 4. Importance of the local context. 5. Ongoing monitoring and evaluation.
Dogherty 2012[53]	To gain a comprehensive understanding of the activities and skills of individuals actively engaged in facilitation and to describe the process of facilitation occurring within the 'Partnership' case-series study.	Canadian Institutes of Health Research knowledge to action (KTA) process	Mixed methods. Case-audit data; focus group.	Three nursing cases from the Canadian Partnership Against Cancer study. These cases represented different areas of nursing practice and levels of guideline implementation (i.e., local, regional) and possessed variation in clinical guideline focus (assessment and management recommendations) and the scope of implementation from a single setting to multiple settings. Nurses.	Facilitation was defined and operationalized case by case locally and was not prescribed. Local facilitators were 'in the field' actively working with cases (i.e., embedded in the setting both geographically and socially) while external facilitators were university-based and off site (i.e., external to the setting) providing strategic and methodological support. Selected facilitators (four local, two external) involved with the cases were invited and consented to participate in the focus group interview. There were certain areas where substantial facilitation from both external and local facilitators was required and where none of the facilitation activities were performed by case members themselves. These areas included: providing resources/tools for change; tailoring/ adapting facilitation services to the local setting; consensus building; problem-solving; and providing ongoing support/reassurance. Key facilitation attributes: 1. Effective communication skills; 2. Organizational skills; 3. Group dynamic and group leadership skills; 4. Relationship skills (teambuilding, support, and encouragement).
Dogherty 2013[54]	To describe the tacit knowledge regarding facilitation embedded in the experiences of nurses implementing evidence into practice.	Not indicated.	Qualitative. participatory and descriptive approach.	N=20 nurses. Pan-Canadian interactive KT symposium. Canada.	A number of factors emerged at various levels associated with the successes and failures of participants' efforts to facilitate evidence-based practice. Successful implementation related to: (a) focus on a priority issue, (b) relevant evidence, (c) development of strategic partnerships, (d) the use of multiple strategies to effect change, and (e) facilitator characteristics and approach. Negative factors influencing the process were: (a) poor engagement or ownership, (b) resource deficits, (c) conflict, (d) contextual issues, and (e) lack of evaluation and sustainability. (p. 129)
Dogherty 2014[55]	To examine the presence and role of facilitation in studies included in an existing systematic review of guideline dissemination and	N/A	Descriptive exploratory examination of existing systematic	28 studies were included in this review.	Facilitation activities ranged from task-oriented assistance (e.g. providing resources) to enabling (e.g. building capacity). Practical elements of facilitation emerging from the literature, described as 53 discrete activities, were for the most part identified in the studies along with three new elements, namely, assisting with finding the evidence, enhancing buy-in, and supporting sustainability (pg. 123). Facilitation is a role, process, or activity that may be engaged in by a

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	implementation in nursing.		review.		number of individuals and also a part of other roles. In seven of the 10 studies, external researchers or a research team performed facilitation-related activities to assist nurses to implement the guideline(s) or encourage and facilitate peers to do so (p. 123).
Doran 2007[56]	To describe an outcomes-focused knowledge translation framework and provide evidence to support the theorized relationships among the concepts in the framework.	PARIHS framework; quality improvement.	Theoretical paper.	Advanced practice nurses.	Facilitation by advanced practice nurses and practice leaders: training and coaching. The intervention is focused on the uptake of research evidence and patient outcomes data to continuously inform and improve nursing practice. The intervention framework integrates the concepts from the PARIHS framework (Rycroft-Malone et al. 2002) and methods from quality improvement to provide a structured approach to guide the continuous improvement of care for individual patients. The functions of the information/change agent: (a) acting as a boundary spanner between the front-line staff nurses' patient level of focus and the system process level and between staff nurses and resources outside the unit; (b) acting as an information seeker for frontline staff nurses and seeking appropriate information; and (c) acting as a change champion with "just-in-time" education, change initiatives, and ongoing coaching. Engaging APNs, such as CNS and clinical educators as facilitators of evidence-based practice among front-line staff nurses.
Doumit 2007[57]	To assess the effectiveness of the use of local opinion leaders in improving the behaviour of healthcare professionals and patient outcomes.	Not indicated.	Systematic review.	Healthcare professionals. 12 studies were included in the review.	Local opinion leaders: play a key role in assisting individuals to identify the evidence underpinning best practice and to facilitate behaviour change (p.2). Informal one to one teaching, community outreach education, small group teaching, academic detailing and preceptorships are examples of strategies used by opinion leaders for disseminating and implementing evidence-based practice. Opinion leaders promote evidence-based practice (EBP). These results are based on moderate quality evidence. Opinion leaders have also used formal strategies, such as delivering didactic lectures. Opinion leaders are people who are seen as likeable, trustworthy, and influential; opinion leaders may be able to help and persuade health care providers to use evidence when treating and managing patients.
Drake 2009[58]	To enhance our understanding of the black box of coaching, the body of knowledge specific to and foundational for coaching and the development of shared guidelines for the use of evidence in coaching.	Not indicated.	Descriptive paper.	Professionals, including clinical practice.	Coaching - four domains of knowledge: personal, contextual, professional and foundational. Coaches should be radically unpredictable, almost iterative process in which the next step is informed in large part by the conditions immediately preceding it. By respecting multiple types of knowledge and evidence, coaches can incorporate research guidance, practice experience, client experience, local context knowledge, (and professional knowledge) in making better decisions in working with their clients (Rycroft-Malone et al., 2004).
Due 2014[59]	To assess the effectiveness of a semi-tailored facilitator-based intervention to optimize chronic care management in general practice.	Not indicated.	Quantitative. Stepped-wedge randomised controlled trial.	General practices: doctors and staff members (N = 189 practices). Denmark.	N=189 general practices were randomized to facilitator education and development of a toolbox and facilitator visits (96 to the intervention group and 93 to the delayed intervention group- one year later). N=14 general practitioners were recruited as facilitators. The training of facilitators was multifaceted and consisted of an educational programme, workgroups, a pilot phase and ongoing network meetings. Practices were offered up to three 1-hour facilitator visits. Facilitators assisted in defining goals for practice development and in choosing suitable means to achieve them. They encouraged and supported the process of change; acting as discussion partners/colleagues and provided standardised visit reports. Authors reported mixed results and a modest intervention effect.
Eaton 2007[60]	To outline the strategies introduced at Princess	Problem solving approach: Read,	Quantitative. Intervention	Nursing students. Hospital.	Facilitation. Individual learning styles: In service sessions (small group), ad hoc demonstrations, discussions, advice; the facilitator was visible, familiar with the ward and its practice, and able to

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	Alexandra Hospital to improve clinical practice environments to positively impact on students' learning experiences.	Think, Do.	study.		recognize opportunities for the demonstration of the guidelines. The facilitator's activities in this project were focused on accessing expert knowledge and making sense of this knowledge in the practice situation so that it could be readily incorporated into nurses work.
Edwards 2010[61]	The Maturity Matrix as a tool designed in the UK to assess family practice organizational development and to stimulate quality improvement. Our aim was to assess the Maturity Matrix's feasibility in an international context.	Organizational development theory.	Quantitative. Feasibility study.	N=153 practices N=11 facilitators. Family practice. UK, Germany, Netherlands, Switzerland, and Slovenia.	Facilitator role and training: The facilitator liaises with practice staff to arrange for as many members of the practice team as possible to be present. A session typically lasts one to 1.5 hrs. The facilitator introduces the Maturity Matrix, talks about the process and takes questions or comments. He or she then gives the instrument to each practice team member, asking them to complete the Maturity Matrix individually. The facilitator initiates a discussion about each dimension. Facilitators attend a standardised training programme combining didactic input about the Maturity Matrix with simulated practice using role plays, video feedback and facilitated discussion. Facilitator training: A lead facilitator was nominated for each country and a training session consisting of a manual, a video and discussion, led by a UK facilitator.
Ellis 2005[62]	To examine the process of translating evidence into practice using a facilitation model developed by the Western Australian Centre for Evidence Based Nursing and Midwifery.	PARIHS framework.	Mixed methods. Workshop/ education; survey; interviews.	A pre-workshop, semi-structured telephone survey with N=16 nurse managers. A summative evaluation immediately post-workshop with N=54 participants. Follow-up, semi-structured interviews with N=23 workshop participants. Six rural hospitals. Australia.	Facilitator as external agent; research nurse; appointed role. Workshop facilitator: To reinforce the practical dimension of evidence-based practice (EBP), workshops were based on a practice issue of immediate local salience. Once a hospital had agreed to host a workshop, one or more senior nurses met to identify a problematic nursing practice issue relevant to their location. They then discussed the issue with the workshop facilitator, providing information on the context that contributed to the problem. Role of the facilitator spanned the continuum from task oriented to holistic. Good facilitation appears to be more influential than context in overcoming the barriers to the uptake of EBP.
Ellis 2007[63]	To evaluate the implementation of a comprehensive program to improve pain management practices in a pediatric hospital.	The Ottawa Model of Research Use.	Mixed methods. Pretest-posttest design; questionnaires , patient record audits, focus groups.	N=366 nurses; N=8 physicians Hospital. Canada.	Local Champion pain resource nurses- received training to enhance their coaching and mentoring skills, which were critical in their interpersonal encounters with staff. The unit-based champions were important because they created a positive atmosphere for change and averted confusion or negative perceptions of the innovation as difficult to use or burdensome. The consistent presence and support of the PRN and other "local champions" were mentioned as key to the relatively trouble-free implementation of the program.
Elnitsky 2015[64]	To understand internal facilitation activities in implementation of a national safe patient handling program.	PARIHS framework.	Qualitative descriptive design; focus groups.	5 focus groups n= 38 facility coordinators (89.5% were nurses). Two conferences. USA.	Internal facilitation was described as "supporting" and "empowering" employees to change practice through implementing evidence. Facilitation process included learning the role of facilitator, assessing the culture, facilitating external programs, negotiating, and getting buy-in. Specific activities included highlighting a need for change, performing practice audits, identifying performance gaps, developing strategic plans, addressing barriers to evidence-based practice, generating enthusiasm, thinking ahead, translating knowledge and disseminating it, providing

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					resources, and creating tools. Participants identified a number of skills associated with effective facilitation including persistence, credibility, clinical experience, empowering leadership style, and flexibility and adaptability. Facilitators who had clinical experience in nursing were perceived to have more credibility to influence stakeholders than non-clinicians.
Elwyn 2002[65]	To describe the facilitation of professional and practice development plans (PPDP) in primary care. This report focuses on the experience of facilitators who engaged the personnel in a series of interactive workshops. The aim of this report is to explore the issues that hamper and foster organisational development within general practice.	Not indicated.	Qualitative. Written accounts/ narrative; action research.	N=12 of the 18 primary care practices. N=4 facilitators. Wales, UK.	The facilitators were non-clinical health service based consultants in organizational and change management. The practices in all but one health authority were allowed to choose their preferred PPDP facilitators from a designated short list.
Engels 2006[66]	To study the effects of a team-based model for continuous quality improvement (CQI) on primary care practice management.	Continuous Quality Improvement.	Quantitative. Randomized controlled trial; pretest-posttest design.	N=24 intervention practices. N=21 control practices. Primary care. Netherlands.	Trained outreach visitors/facilitators. During a total of five meetings, a facilitator helped the teams in the intervention group select suitable topics for CQI and follow a structured approach to achieve improvement objectives. Assessment of the practice management using VIP was the starting point for the intervention. After initial assessment, the practices in the intervention group undertook a CQI process with the help of an outreach visitor. The outreach visitors were all experienced practice assistants who had also participated in a 3-day training programme to learn how to organise the CQI meetings, guide the practice team through the steps of the CQI model and deal with group processes in general. The practices in the control condition were only provided the written feedback from the VIP and related suggestions for improvement during the usual 1-hour meeting. The practices exposed to our team-based CQI intervention within the context of the present study initiated and completed significantly more CQI projects than the practices in the control group.
English 2011[67]	To synthesize the findings of the quantitative and qualitative research we undertook over a period of four years. Our primary aim is to offer explanations for why the intervention did or did not produce desired effects.	Diffusion of innovations; theory of planned behavior; motivation and worker performance; clinical microsystems; organizational culture; and transforming systems.	Qualitative. Theory building.	Rural hospitals in Kenya Healthcare providers. Africa.	Facilitators (nurses from within the hospital or a non-physician clinician with training in pediatric care. Focus is on aspects of the facilitator role deemed critical to promoting performance improvement amongst the wider set of clinicians and nurses responsible for care in their hospitals. Although not senior personnel within the hospital hierarchy, these actors had a central responsibility for blending the explicit knowledge and expectations encapsulated by the intervention with implicit knowledge of their environment; facilitator acted as a visible reminder of the performance expected. Facilitators were embedded in an organization and linked to a wider support supervision framework.
Ervin 2005[68]	To describe how clinical nurse specialists can promote the	Not indicated.	Descriptive paper.	Clinical nurse specialists.	Clinical coaching: a strategy to help develop critical thinking and other skills in nurses for the purpose of achieving evidence-based practice. Clinical nurse specialists (CNSs) are in unique

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	development of knowledge and skills in nurses as one step toward making evidence-based nursing practice (EBNP) the norm in all patient care settings.				positions to assist nurses to acquire the knowledge and skills needed in making EBP the norm in all settings. Clinical coaching is a strategy that can be used by CNSs. Techniques used in clinical coaching may include observation of a nurse's clinical care with feedback provided; demonstration of skills such as leadership, conflict resolution, and problem solving; listening exercises. Clinical coach: thinking, role models, motivators. Change agent: belief that the change is needed, persistence to move the change forward, leadership recognition within the group addressing the change and effective communication skills.
Eskicioglu 2014[69]	To report the outcome of a 5-year knowledge translation strategy to increase adherence to a guideline for mechanical bowel preparation.	Pathman model of change[70]	Quantitative. Before-and-after design.	Surgeons and residents working with elective colorectal surgery patients. Six hospitals. Canada.	Two KT strategies were used to increase adherence with a clinical practice guideline (CPG) for mechanical bowel preparation (MPB) for elective colorectal surgery patients. KT strategy #1 included the development of the CPG, education by opinion leaders including presentation of the current status of the use of MPB, and reminder cards. KT strategy #2 included the involvement of hospital champions (opinion leaders), development of local and provincial communities of practice, frequent electronic updates, adoption of standardized order sets, and audit and feedback. (p.40) Using a tailored KT strategy increased compliance with CPG recommendations over time.
Ferguson 2004[71]	To describe the role of intermediaries: getting evidence into practice.	Not indicated.	Descriptive paper.	Clinical nurse specialists.	Facilitation: "involves helping others to identify questions of practice; providing support to enable others to meet specific goals, including research use; attending to the process of achieving those goals; and knowing the system in which change is proposed and implemented" (p 325). Intermediaries may be a necessary link to greater research use. They have knowledge of the research process and are capable of acting as a link between research and practice. Knowledge of how to apply research in practice is required. They have clinical credibility and research knowledge that enables them to facilitate the use of research within the practice setting. Strong critical thinking and facilitation skills are desired attributes of intermediaries and have been linked with increased research use. Intermediaries are capable of assisting others in the practice setting to identify clinical questions and to stimulate practice triggers for RU.
Fielden 2009[72]	To examine ways in which coaching and mentoring relationships impact on the professional development of nurses in terms of career and leadership behaviours, and evaluating the differences and similarities between those coaching and mentoring relationships.	Not indicated.	Mixed methods. Longitudinal intervention study; interviews; questionnaires	N=15 coachees; N=15 mentees. Nurses. Six HealthCare Trusts took part in the programme: 2 Acute Trusts, 2 Primary Trusts and 2 Mental Health Trusts. UK.	While mentoring was perceived to be 'support' and coaching was described as 'action', descriptions of the actual process and content were quite similar. Coaching: The purposes of coaching may be diverse, but can include: (1) transitions from one role or state to another; shifts in role or career; (2) dealing with organizational changes; (3) resolution of issues and problems; and (4) skills development. The coaching process involves the development of rapport, relationship building, gathering of information through assessment and review, negotiation of carefully defined goals and implementing problem solving. Mentoring: mentoring must progress through four distinct stages of evolution: initiation, cultivation, separation and redefinition.

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Fineout-Overholt 2004[73]	To share information learned from a pilot study about what is necessary for successful implementation of evidence-based practice (EBP) in the acute care setting.	ARCC model for implementing EBP in clinical settings.	Quantitative. Randomized controlled trial pilot study.	Staff nurses; physicians/residents. Two pediatric units in a 700 bed tertiary care center and four adult units in a specialty surgery hospital. USA.	EBP champions: those who believe in EBP principles, know how to integrate them into the system culture and can mentor others in the EBP process. EBP champions were necessary at all levels, from administrators to staff nurses. Champions must have adequate knowledge of EBP principles to guide the process for others. EBP mentors/clinical nurse specialists (CNS): CNS role traditionally has been one of an information broker, with additional education and skills training a CNS role could evolve into an EBP mentor. EBP rounds to address EBP with a larger group.
Fineout-Overholt 2005[74]	To provide an overview of evidence-based practice (EBP) and offers recommendations for accelerating the adoption of EBP as a culture in education, practice, and research.	ARCC model and EBP process models.	Descriptive paper.	Clinical scholar.	Evidence based practice mentor: an advanced practice nurse with in-depth EBP and clinical knowledge and skills who provides mentorship in EBP and facilitates improvement in clinical care and patient outcomes through EBP implementation and outcomes management projects. A clinical scholar as facilitator: is knowledge oriented and uses research as both a product and process for teaching and managing care. They must have extensive EBP process knowledge and skills and the attributes of a clinical leader: creativity, courage, compassion, strength, and vitality.
Flodgren 2011[75]	To assess the effectiveness of the use of local opinion leaders in improving professional practice and patient outcomes.	N/A	Cochrane systematic review.	N= 18 studies involving more than 296 hospitals and 318 PCPs. Healthcare professionals. Primary and secondary care.	Opinion leaders=the most striking feature of opinion leaders is their unique and influential position in their system's communication structure; they are at the centre of interpersonal communication networks - interconnected individuals who are linked by patterned flows of information. Opinion leaders use a range of interpersonal skills in order to achieve desired behavioural change. Informal one to one teaching, community outreach education visits, small group teaching, academic detailing and preceptor-ships are examples of strategies used by opinion leaders for disseminating and implementing evidence-based practice.
Foley 2012[76]	To evaluate the opportunities for and challenges to implementing the U.S. Public Health Service Guidelines for tobacco cessation in free clinics.	Organizational theory and diffusion of innovation theory (Rogers).	Mixed methods. Intervention/guideline implementation; focus groups; interviews.	N=6 free clinics in North Carolina Healthcare providers. USA.	Champion=Each clinic was asked to identify a program champion who would ensure implementation of provider and clinic-based strategies. Each clinic will dedicate at least 1 person committed to organizing the clinic's efforts related to tobacco control. Academic detailing was used to support free clinics in their implementation of the PHS guidelines by providing training to the program champion. The goal of academic detailing is to promote treatment decisions that are cost-effective and evidence based by providing clinics with a repertoire of effective tobacco prevention and cessation strategies that are evidence-based.
Frantsve-Hawley 2008[77]	To describe an evidence-based dentistry (EBD) program.	Rogers diffusion of innovation.	Descriptive paper.	Dentists.	The use of Champions is one effective approach used by others in the healthcare field to successfully implement science research to clinical care. Champions are influential individuals who support the transfer of knowledge among their peers. The roles of these Champions include seeking opportunities to promote and support best practices, mentoring others to support knowledge transfer, networking with other health professionals about best practices, being a resource to the local region for knowledge transfer, and facilitating use of guidelines; mentoring their colleagues in the application of EBD principles; highly qualified and motivated individuals.

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French 2005[78]	To describe the impact of contextual factors on the practical reasoning of nurse specialists in the construction of policy for practice.	N/A	Qualitative. Observations of meetings; meeting transcripts analyzed.	Three groups of clinical nurse specialists (n=48) from 35 different organizations. UK.	Boundary spanners (linking agents): clinical nurse specialists act as boundary spanners who facilitate and maintain links across professional, team, and organisational boundaries. They act as intermediaries and help build relationships and networks for research-based change.
Friedman 2009[79]	To describe educational methods employed throughout the EDUCATE Study, challenges encountered in executing the educational component, and potential resolution strategies observed by nurse educators involved in the project	Awareness to Adherence Model developed by Pathman, Konrad, Freed, Freeman, and Koch (1996).[70]	Quantitative. Pre-post intervention design.	Study participants were prescribers (physicians, nurse practitioners, and physician assistants) employed in community-based medical or gynecologic oncology practices. Another group were non-prescribers. N=268 healthcare professionals and clinical support staff were included in the educational intervention. N=48 sites were recruited from five regions. USA.	Practice champions (most were nurses) to implement processes intended to integrate evidence-based CPGs into practice. A faculty of nurse educators, together with practice champions, carried out an intensive educational intervention comprised of multiple teaching/learning activities during a 12-month period in community oncology practices. The effect was measured through healthcare professional or prescriber adherence to the guidelines. Practice champions identified at each site were responsible for identifying and preparing charts for data abstraction, scheduling study-related visits and activities, and monitoring interventions to encourage adherence among participating staff with the prescribed educational programs.
Garcia-Elorrio 2014[80]	To assess the effect of a multifaceted intervention among skilled birth attendants on the use of oxytocin during the third stage of labor and reducing routine use of episiotomy.	Not indicated.	Quantitative. Uncontrolled before-and-after study design.	Skilled birth attendants: doctors (GPs or obstetricians/ gynaecologists), residents, midwives, nurses (n = 103). Two general hospitals and six health centers. Nicaragua.	Opinion leader teams participated in a 5-day workshop where they critically evaluated the medical literature and developed clinical practice guidelines on the management of the third stage of labor and the indication of episiotomy. The opinion leader teams disseminated the guidelines they had developed and trained the birth attendants at their facility. They placed reminders, distributed information packages, and produced bimonthly reports. (p. 32) The intervention was successful in changing provider behaviour.
Gerrish 2011[81]	To identify approaches used by advanced practice nurses to promote evidence-based practice among clinical nurses.	Not indicated.	Qualitative. Case study: interviews; observation.	n=23 advanced practice nurses from hospital and primary care settings across seven Strategic Health Authorities England, UK.	Advanced practice nurses acted as knowledge brokers in promoting evidence-based practice among clinical nurses. Knowledge management and promoting the uptake of knowledge were key components of knowledge brokering. Knowledge management involved generating different types of evidence, accumulating evidence to act as a repository for clinical nurses, synthesizing different forms of evidence, translating evidence by evaluating, interpreting and distilling it for different audiences and disseminating evidence by formal and informal means. APNs promoted the uptake of evidence by developing the knowledge and skills of clinical nurses through role modelling, teaching, clinical problem-solving and facilitating change.

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Gerrish 2012[82]	To identify factors that influence APNs' ability to promote EBP among frontline nurses.	Not indicated.	Qualitative. Multiple case study; interviews; observation.	n= 23 APNs from hospital and primary care settings across seven English health authorities. UK.	Advanced practice nurses (APN) as facilitators: promote evidence based practice among frontline nurses. Four groups of factors influencing APNs' ability to promote EBP among frontline nurses were identified: personal attributes, relationships with stakeholders, the APN role, and the organisational context.
Gerrish 2016[83]	To report on a multifaceted knowledge translation (KT) intervention to facilitate use of a Malnutrition Universal Screening Tool (MUST) and innovation in nutritional care for patients at risk of malnutrition.	Knowledge to Action framework[84] PARIHS framework.	Mixed methods: audit of patient records, observations, interviews, surveys.	Healthcare providers in 3 medical wards in one large hospital: nutrition champions (NC) (n=6), RNs (n=89 survey), care aides (n=3), clinical nurse managers (n=2), knowledge translation facilitators (KTF) (n=3). UK.	Three components to the KT intervention: NCs, KTFs, and an action planning process. Two NCs were identified on each ward: one RN and one health assistant under the supervision of a RN. Three KTFs were appointed to provide training (2 RNs and 1 dietician) to the NCs, assist them with developing nutrition action plans and provide ongoing support. KTFs supported the NCs to implement action plans by visiting the wards regularly to review progress. "NCs were successful in increasing the timely assessment of patients at risk of malnutrition and promoting innovation in nutritional care. Support from KTFs helped NCs develop their role and work collaboratively with senior ward nurses to implement action plans for improving nutrition."(p.3182)
Gibson 2008[85]	To align usual pain assessment and management practices with evidence-based recommendations derived from best practice literature.	Readiness for Change model.	Mixed methods. Intervention study; focus groups; interviews; questionnaire.	Nurses. Three long-term care (LTC) residential healthcare settings representing 9 nursing units within one large healthcare organization. Canada.	The facilitator was external to the residential care settings; project coordinator (RN) was employed half-time for 2 years to facilitate change. Best practice reminders were provided to support new practice patterns in staff meetings, ad hoc contacts, flyers, electronic messaging, interaction with leaders, posters, chart audits. The facilitator allocated her time across units equally about 2 hr/wk per unit: 1 hour staff communication, 1 hour preparation and support activities. Contact was ongoing for 17 months.
Goldberg 1998[86]	To determine the effectiveness of academic detailing (AD) techniques and continuous quality improvement (CQI) teams in increasing compliance with national guidelines for the primary care of hypertension and depression.	Plan-Do-Study-Act (PDSA).	Quantitative. Randomized controlled trial.	Fifteen small group practices at four Seattle primary care clinics were assigned to one of three study arms: AD alone, AD plus CQI teams, or usual care. N=95 providers. N=4,995 patients. Two guidelines were chosen (hypertension and depression). USA.	Two physician opinion leaders from each site were trained to conduct 15 minute AD sessions; pharmacists at each clinic were trained to conduct 2 follow-up sessions. A trained CQI facilitator was responsible for implementing the intervention across all sites for the first 4 months using PDSA cycles.
Gotlib Conn 2015[87]	To understand the process, enablers and barriers that influence the success of an Enhanced Recovery After Surgery (ERAS) implementation.	The Normalization Process Theory[88]	Qualitative. Interviews.	Healthcare providers: 15 surgeons, 14 anaesthesiologists, 15 nurses, 14 project coordinators working as part of the implementation team	Hospital champions (a nurse, surgeon and anaesthesiologist) from each site comprised the hospital's local implementation team. Champions lead the implementation through stakeholder education and engagement; overseeing local data collection, reporting and auditing, and liaising with project leadership committee. Champions were asked to attend two annual workshops and monthly or biweekly teleconferences. (p. 4) but they were not formally trained. The champion role was successful when there was a belief in the value of the program, when necessary

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				(N = 58). N=15 hospitals. Canada.	relationships were built, and there was effective negotiation and communication with colleagues.
Graham 2002[89]	To describe a framework for evaluating and adapting existing practice guidelines for local use by healthcare organizations and groups.	Practice Guidelines Evaluation and Adaptation Cycle.	Theoretical paper.	Clinical and administrative decision makers.	Guideline evaluation groups should include a group leader, members with clinical content expertise, members with methodologic expertise consumers, technical support, and administrative support. The group leader's diplomacy and mediation skills can greatly facilitate Adaptation of Existing Guidelines for Local Use by helping the group to consider and address the local issues that might negatively affect the use of the recommendations.
Grimshaw 2006[90]	To test the feasibility of identifying, and the characteristics of, opinion leaders using a sociometric instrument and a self-designating instrument in different professional groups within the UK National Health Service.	Diffusion and social influence theories.	Quantitative. Questionnaire.	All GPs, practice nurses, and practice managers in two regions of Scotland. All physicians and surgeons (junior hospital doctors and consultants) and medical and surgical nursing staff in two district general hospitals and one teaching hospital in Scotland, as well as all Scottish obstetric and gynaecology, and oncology consultants. UK.	Opinion leaders appeared to be condition-specific. Opinion leaders: there must be effective interpersonal communication networks, peer influence must work amongst professional groups, they must be readily identifiable, they must be inclined to adopt changes based on evidence. They are at the centre of interpersonal communication networks – interconnected individuals who are linked by patterned flows of information. When compared to their peers, opinion leaders tend to be more exposed to all forms of external communication, have somewhat higher social status, and to be more innovative.
Grimshaw 2012[91]	To summarise the current concepts and evidence to guide knowledge translation activities.	Not indicated.	Descriptive paper.	N/A	"EPOC defines educational outreach or academic detailing as 'use of a trained person who meets with providers in their practice settings to give information with the intent of changing the providers' practice. The information given may have included feedback on the performance of the provider(s)' " (p.7). "EPOC defines local opinion leaders as 'use of providers nominated by their colleagues as 'educationally influential.'
Grol 1999[92]	To propose a general framework for changing practice, based on theoretical approaches for translating evidence into clinical practice and on empirical evidence about the effectiveness of different implementation strategies.	Describes different approaches to change: educational, epidemiologic, marketing, behaviorist, social influence, organizational, and coercive.	Theoretical paper.	Healthcare providers.	Facilitators to change: link the interventions to the needs, facilitators, and obstacles to change. Educational, epidemiologic, and marketing approaches seem to be particularly effective at the adoption stage to raise awareness of the innovation (developing an evidence-based guideline; disseminating it through mass media, courses, and personal approaches; and particularly using the guideline for local consensus development in small-group, interactive sessions in which the guideline is adapted to local needs).
Guihan 2004[93]	To describe lessons learned during the process of trying	Not indicated.	Mixed methods.	Six Department of Veterans Affairs SCI	Local opinion leaders help facilitate guideline implementation by deciding what aspects of the CPGs should be focused on; they also help maintain and enhance formal and informal contact

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	to get spinal cord injury (SCI) clinical practice guidelines (CPGs) embedded into practice.		Survey; focus group; chart abstraction; process log; administrative databases.	Centers. N=152 providers. N= 2,881 unique patients with SCI for a total of 14,768 encounters at 6 centers. USA.	with colleagues during implementation. In some cases, because of the specialization among clinicians, it was necessary to have different champions for each guideline. Someone needs to "champion" the guideline on each unit.
Gurzick 2010[94]	To address the call for evidence based practice through the development of clinical pathways and to assert the role of the clinical nurse specialist (CNS) as a champion in clinical pathway implementation.	Synergy Model for Patient Care.	Literature review.	Clinical nurse specialists. Multiple databases.	CNS as a champion in clinical pathway implementation. CNS champions change through use of skilled collaboration and system-level thinking. Attributes of CNS: clinical judgement, CNS as facilitator of learning as a change agent can aid in the success of pathway development, implementation, utilization, and ongoing evaluation. CNS fosters collaboration of the team by facilitating effective communication.
Hadjistavropoulos 2016[95]	To evaluate the implementation of a pain protocol that includes a pain assessment workshop and the establishment of a nurse pain champion.	Consolidated Framework for Implementation Research (CFIR)[96]	Mixed methods. Case series design; focus groups, interviews.	Healthcare providers in two long-term care facilities (nurses, care aides). Baseline focus group n=11 nurses and 9 care aides. Post-implementation focus groups n=4 nurses and 10 care aides. Canada.	Pain champion was a clinical nurse specialist in each LTC facility with a special interest in pain assessment and management. Implementation of a pain protocol included delivery of a workshop on pain assessment and management including best practices. Pain champions were responsible for the continued communication of workshop material to new staff members, and assisting staff in managing complex resident pain situations. Staff were able to successfully implement and maintain a pain assessment protocol. "Staff members reported enthusiasm about the protocol at baseline and positive results following its implementation. Despite the success in increasing assessments, we did not identify changes in the percentages of patients reported as having moderate-to-severe pain." (p. 1).
Hak 2000[97]	To assess the effectiveness of a nation- wide multifaceted intervention program involving general practices (GPs) on influenza immunization practice.	Not indicated.	Quantitative. Before and after intervention study.	The pre-measurement questionnaire was returned by N=1251 GPs. N=988 GPs returned the post-measurement questionnaire. Random sample of Dutch GPs. Primary care. Netherlands.	A GP district co-ordinator was appointed to facilitate the management of preventive activities. Facilitators were employed in each GP district to individually support GPs adopting the immunisation guideline. Interventions implemented to enhance physician adoption of the immunisation guideline included employment of facilitators, information based methods, small group consensus meetings, individual instructions and introduction of supportive computer software. Facilitating tasks included improvement of the practice organization, assistance with using computerized registration and supportive software, assistance with coordination of task division of practice personnel and healthcare partners and the supply of brochures. The contents of the facilitator training programme focused on the performance of a multifaceted outreach visit intervention.
Harrison 1989[98]	To review the literature related to research	Not indicated.	Descriptive paper.	Nurses. Two schools of nursing.	Research facilitators are hired for the purpose of instituting an organized research program where none had existed. The services that research facilitators provide vary widely. Clinical Nurse

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	facilitation and describe our experiences in planning, implementing and evaluating research facilitator roles in two different schools of nursing.			USA.	Researchers who follow the facilitator model focus on preparing and motivating other nurses in the institution to initiate and conduct research. Facilitation strategies can be grouped into the broad categories of providing administrative support, creating a supportive climate, overcoming perceived barriers, establishing a nursing research centre and appointing a research facilitator.
Harrison 2013[99]	To examine how cancer care groups adapted pre-existing guidelines to their unique context and began implementation planning.	Knowledge to Action (KTA) cycle	Mixed-methods, case-study design.	Canadian cancer care groups (n=5 groups)	"Facilitation is described as a multifaceted process comprising more than 50 specified actions grouped across four stages: planning for change, leading and managing change, monitoring progress and on-going implementation, and evaluating change" (p. 11). "Facilitation was provided both internally (local staff, case-based) and externally (Queen's team) and ranged from supplying task-focused assistance, to developing group skills, to methodological aspects" (p.9). "Specifically they [internal facilitators] contributed to management of their respective working panel and agency communications, organized meetings, liaised with information science professionals and methodologists, retrieved guidelines and documented search and screen decisions, managed AGREE appraisals, prepared recommendations matrices, facilitated consensus, prepared guideline drafts, and coordinated internal and external reviews of the guideline" (p. 9). "Facilitation was perceived as a process engaged in by a number of individuals rather than a specific single role" (p. 9). "As external facilitators, the Queen's team provided each case with an orientation workshop addressing fundamentals of evidence-based practice, the Knowledge-to-Action cycle, and the phases, the modules, steps and tools of the ADAPTE method" (p.9).
Harvey 2002[52]	This paper presents findings of a concept analysis of facilitation in relation to successful implementation of evidence into practice.	PARIHS framework development.	Theoretical paper. Concept analysis.	Healthcare providers. UK.	Facilitation refers to "the process of enabling (making easier) the implementation of evidence into practice" (p.579). Facilitation is achieved by an individual carrying out a specific role (a facilitator), which aims to help others. Facilitators are individuals with the appropriate roles, skills and knowledge to help individuals, teams and organizations apply evidence into practice. Purpose of facilitation can vary from providing help and support to achieve a specific goal to enabling individuals and teams to analyse, reflect and change their own attitudes, behaviour and ways of working. The facilitator role has a corresponding influence on the level and amount of support provided by the facilitator. Facilitation (characteristics, role, style): personal characteristics of the facilitator, a clearly defined role and appropriate styles of working. Facilitation process ranges from task to holistic focused. Models of external-internal facilitation. The operationalization of the facilitator role depends upon the underlying purpose and interpretation of the facilitation concept. The central focus of the facilitator role has a corresponding influence on the level and amount of support provided by the facilitator. 'Doing for others' (task focused) versus 'enabling others' (holistic focused). Core skills such as interpersonal and communication skills, facilitators require a tool kit of skills and personal attributes that they can use depending on the context and purpose. Facilitators can be external or internal to the organization; some facilitators explicitly focus on the need to address and develop organizational systems and culture. Summary of defining characteristics of facilitation: it is an appointed role, internal or external role, helping and enabling role, role has corresponding skills and attributes.

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Harvey 2011[100]	This paper outlines the Greater Manchester Collaborations for Leadership in Applied Health Research and Care (CLAHRC) approach to designing and evaluating a large-scale, evidence- and theory-informed, context-sensitive Implementation programme.	PARIHS framework and the Model for Improvement (Langley et al;[101] based on the plan-do-study-act cycle).	Theoretical paper.	N/A	"Facilitation addresses the broader organizational dimensions of implementation and helps to create the optimal conditions for promoting the uptake of evidence into practice in a given context" (p. 7). Facilitators "can take on a number of approaches to facilitation ranging from a largely task-focused, project manager role to a more holistic, enabling model where the facilitator works at the level of individuals, teams, and organizations to create and sustain a supportive context for evidence-based care" (p. 8). "Skilled facilitators need to be able to move across different points of the facilitation continuum to meet the different requirements of individuals, teams, and organizations at different points in time. However, this requires facilitators to possess a sophisticated range of knowledge, including diagnostic skills (to assess the organizational context and the needs of individuals and teams), project management skills (planning and evaluating implementation activities), and interpersonal skills (building relationships, supporting individual, team and organizational development and learning, overcoming resistance to change)" (p.8).
Harvey 2012[102]	To describe our experience of using Practical Application of Clinical Evidence System (PACES) with an international group of nursing home facilitators.	PARIHS Framework	Mixed methods.	8 nursing homes; 2 in each of the four countries: Sweden, England, Ireland, and the Netherlands.	"Type A facilitation is a pragmatic, quality improvement-based intervention, whilst Type B is an enabling, critical social science-based approach, with an emphasis on inquiry, reflection and emancipatory action" (p.389). External facilitators provided a "three day residential programme, they then provided ongoing support to the internal facilitators via monthly teleconferences" (p.389) (e.g., facilitate information sharing). "The initial development programme for internal facilitators from the eight nursing homes (two from each of the four countries) covered a range of topics, including understanding and interpreting evidence based recommendations in a local context, agreeing aims and planning for implementation, auditing and re-auditing practice, taking action to improve, the facilitator role and facilitation methods" (p. 389-399).
Harvey 2015[103]	To evaluate the effectiveness of a two-phase collaborative intervention to promote the uptake of evidence-based guidance on identification and management of CKD (chronic kidney disease) in primary care.	PARIHS framework; modified Model for Improvement[101]	Quantitative. Pre-test/post-test design.	Staff working in n=30 general practices. Primary care. UK.	"Key elements of the intervention included learning events, improvement targets, Plan-Do-Study-Act cycles, benchmarking of audit data, facilitator support and staff time reimbursement." (p. 10). Practices were invited to joint learning events. Each practice was encouraged to send three staff members who would form the practice improvement team. "Two facilitators (external) made regular practice visits to support the improvement process and provide help with activities such as data searches, managing practice registers, developing process maps and advising on how to overcome particular barriers or problems." (p. 12) "Common enabling factors included the learning events, the support of the facilitators, having clearly defined targets, regular feedback of data and financial support to participate in the collaborative." (p.15). "We have begun to develop an external-internal model of facilitation within local primary care practice- an important area for future development to build capacity for improvement within primary care and enhance sustainability over the longer term." (p. 15). "An improvement collaborative with tailored facilitation support appears to promote the uptake of evidence-based guidance on the identification and management of CKD in primary care." (p. 10).
Hayes 2008[104]	To explore strategies for improving patient outcomes in type 2 diabetes.	Transtheoretical model (Prochaska et al.1995).[105]	Literature review.	Nurses. The literature related to type 2 diabetes management, behavior change, communication,	Nurse coaching has shown promise as a strategy for facilitating behavior change that can lead to improved patient outcomes. Strong provider communication, and negotiation skills. Coaching is participatory and collaborative between coach and coachee, provider and patient. Nurse coaching: typically takes place in face to face telephone or email communications in several sessions some lasting up to 6 months.

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				diabetes self-management, and coaching.	
Hemsley-Brown 2004[106]	Paper examines issues related to research use by managers, with a focus on the role of managers in facilitating research use by practitioners.	Not indicated.	Literature review.	Practitioners-healthcare professionals, teachers, administrators. Search included 10 databases.	Research use can be facilitated through: support and training (e.g., peer and expert opinion leaders); collaboration and partnership (e.g., seeking opportunities for researchers to work with users); dissemination strategies (e.g., diffusion of innovations); networks (e.g., communities of practice); and strong, visible leadership.
Hogg 2002[107]	To understand why some family practices with a facilitator improved preventive performance more than others. Sustainability of practice improvements one year after the intervention was also explored.	Not indicated.	Qualitative. Interviews.	Physician, nurses, office staff at seven family practices. Canada.	Outreach facilitation: trained individuals or facilitators who work with providers in their practice setting to provide information and assist the practice in implementing evidence-based guidelines. Facilitator characteristics: knowledgeable, keen, available, encouraging staff to voice their concerns; provides regular feedback and visits.
Hogg 2008a[108]	To evaluate whether a comprehensive preventive intervention program using outreach facilitators improves preventive care delivery.	Not indicated.	Quantitative. Match-paired randomized controlled trial.	N=54 primary care practices; N=27 in intervention group and N=27 in control group. Two master's prepared nurses acted as prevention facilitators. Canada.	Outreach facilitation: "employs individuals with a nursing background and formal training or experience in management who are external to the practice, to promote the uptake of evidence-based guidelines and facilitate quality improvement in a practice setting" (p.41). Facilitation intervention: Two nurses with a Master's degree in Administration were employed as prevention facilitators. Each one was assigned 13 or 14 practices, visited each practice on average once a month, each visit lasting an average of 46 minutes. Facilitators delivered for the most part three intervention strategies found by our group to be particularly effective for improving preventive care in the previous study. Facilitator training and assignment: They received a 7-week theoretical and practical training course. Periodic follow-up and consensus building: Every 3–6 weeks up to the intervention's end, facilitators would visit the practice to follow-up on their progress and needs for improving preventive care. Practices in the control group did not receive any services from the facilitators during the intervention period.
Hogg 2008b[109]	To assess the extent to which advances in preventive care delivery, achieved in primary care practices through outreach facilitation, could be sustained over time after purposefully redirecting the focus of the practice physicians and staff away	Not indicated.	Quantitative. Before and after study; outreach facilitation intervention.	N=30 primary care practices; N=3 master's prepared nurses acted as prevention facilitators. Canada.	Outreach facilitation: "employs individuals with a nursing background who provide prevention performance feedback to a practice, build consensus on improvement goals and through regular visits, support the practice by following a systems strategy tailored to that practice" (p.714). Intervention: Outreach visits directed at modifying physician behaviour were delivered by trained nurse facilitators using practice-tailored systems strategies. For the first 12 months, the intervention focused on improving delivery of preventive care, after which facilitation of chronic illness management was introduced for another 3 to 9 months. Three nurses with master's degrees were employed as prevention facilitators. Following training, facilitators were each assigned up to 11 practices,

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	from prevention and toward a new content area in need of improvement- chronic illness management.				according to geographic proximity to their residence. The facilitators attempted to visit the practices approximately every 3 to 4 weeks and delivered primarily 3 intervention strategies: audit and feedback, consensus building, and reminder systems. The prevention facilitation phase lasted 12 months or until the facilitators felt that practices had maximized the improvement potential of preventive care delivery.
Hohlfelder 2016[110]	To describe the implementation of a prolonged infusion for time-dependent antimicrobial agents and compliance with guideline implementation.	Not indicated.	Quantitative. Retrospective analysis of guideline implementation.	Healthcare providers: physicians, pharmacists and nurses. Tertiary academic medical center. USA.	"Physical champions are a group of individuals who accept the responsibility to demonstrate behavioural changes in clinical practice, and to encourage others to do so as well." (p. 1769) The physical champions (physicians, nurses, pharmacists) provided continual support and instruction to nurses using the prolonged infusion guideline. They ensured that important aspects of the guideline were carried out and engrained into clinical practice at the institution. "Implementation of a prolonged infusion guideline for time-dependent antimicrobials was a success. Adherence to the prolonged infusion guideline over an entire year approached 90%" (e1771).
Holtrop 2008[111]	To describe the process of the nurse consultation service and how it might be used to implement these and other changes in a primary care practice.	5 A's Approach - Ask the patient about the behavior, advise toward the healthy behavior, assess interest in changing behavior, assist with making behavior change, and arrange for follow-up with either the clinician or another care provider.	Quantitative. Intervention study.	Twenty clinics in two healthcare systems (10 each): N=16 primary care (family medicine), N=3 general medicine, or a combination of both (N=1).	Nurse consultant/practice change facilitator: Nurses already employed at the sites were trained by study investigators during an intensive 3-day training, which included an overview of the project and desired outcomes. The nurses assisted the practice champion by providing support and indicating when they observed consensus developing. The role of practice champion was new to some practices, and for others, the champion was an individual on whom they relied for other purposes. The intervention was for the nurse consultants to work with the practices as a whole to integrate more health behavior interventions into the care they provide. The nurse consultants' focus was to assist the clinicians and staff with their delivery of health behavior services to patients.
Hulscher 1997[112]	The aim of the study was to assess the effects of such outreach visits on the organisation of preventive strategies, and to identify characteristics of the practices that determined success." (p. 20).	Not indicated.	Quantitative. Non-randomized controlled trial.	Nurses and physicians. N=95 practices: N=33 had outreach visits; N= 31 had feedback; N=31 were controls. N= 6 facilitators were trained for their role. Netherlands.	Outreach visits by trained nurse facilitators. Nurses visited practices to provide facilitation for the implementation of guidelines. Six practice nurses were selected based on their experience in general practice and on personal skills and were carefully trained to carry out the facilitator's role. Intervention that combined various methods for quality improvement, focusing on implementing guidelines on prevention of cardiovascular disease. The visits were compared with a feedback approach. On average, visits involved about 30 hours of meetings for practice staff. Offering support designed for the individual practice, repeating messages during repeated visits, involving the practice team, feeding back behaviour, and offering the chance to try out several alternatives.
Hung 2008[113]	This study describes the implementation of the Chronic Care Model (CCM) as adapted for prevention and health behavior counseling in primary care practices, and examines relationships	Chronic Care Model (Wagner et al. 1996).[114]	Quantitative. Survey.	Physicians. N=57 practices. USA.	Practice champions as leaders who mobilized others to make and sustain improvements to health promotion; evidence-based guidelines for decision support.

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	between the CCM and patient health measures, including general health status and health-related quality of life (HRQOL).				
Jamerson 2012[115]	To provide recommendations regarding the most productive models based on review of historical clinical research facilitation models and the results of a survey regarding extant models conducted among research facilitators who were members of the Midwest Nursing Research Society.	Not indicated.	Mixed methods. Literature review; cross-sectional survey.	Midwest (United States) for survey (n=26)	Research facilitator role: the conduct of research (own and/or others), the development of research capacity, and the building of research culture within the organization" (p.21). Key research facilitator functions: literature searches, literature reviews, research question generation, and research/evidence based practice education.
Janes 2009[116]	"To explore the factors that influence the facilitation of nursing staff utilization of best practice knowledge in LTC homes from the perspective of facilitators themselves." (p. 167)	Not indicated.	Qualitative. Interviews; participant written accounts.	N=34 facilitators (e.g., advanced practice nurses) working in long-term care. Canada.	Facilitators were responsible for encouraging both nursing staff and unregulated care providers to use the best available knowledge about aged care as a basis for practice. (p. 168) Framing involved translating best practice knowledge so that it was 'relevant' to staff practice 'concerns' and 'realities'. Facilitator traits: - Being 'rigid' and 'fixed' on using one facilitation strategy is likely to lead to frustrated efforts while being able to 'think outside of the box' and 'change course' as a facilitator was linked to success. A facilitator's teaching style has to change in response to varied staff learning styles and receptivity to changing practice. - One must also be able to adapt to the context of the learning environment in terms of the availability of space and time and to the practice and workload priorities that compete for nursing staffs' attention to the facilitators' efforts. - When nursing staff see that facilitators have 'walked the walk', the new knowledge shared by facilitators was seen as more credible. - Facilitators work to create a positive emotional climate that fosters learning and professional growth.
Jarman 2009[117]	This article reports on the development and evaluation of an ongoing project aimed at promoting good practice and providing opportunity for feedback between senior nurses and staff in the emergency department- "the clinical nursing round."	Mentoring Model.	Quantitative. Questionnaire s; retrospective analysis of record sheets.	Senior nurses and staff in a hospital emergency department. UK.	Facilitator: a Consultant Nurse who facilitated the implementation of (or lead) the rounds. The project rounds were facilitated by the Consultant Nurse and undertaken with a focus on acutely unwell patients in the 'major treatment' area and resuscitation room. To support the nurses in the articulation of the tacit knowledge applied in their practice daily; the ability for nurses to make explicit their reasoning for undertaking decision; to use expert knowledge to provide a meaningful learning experience. Characteristics: to be able to effectively assess the participants needs; the facilitators were all experienced mentors who applied their mentorship skills to guide the progress and content of each nursing round.

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Jefferis 2008[118]	This article highlights the context, challenges, and successes of faculty mentors for developing nursing staff's involvement in and use of evidence-based practice (EBP).	Complexity theory (Holden 2005;[119] Rowe & Hogarth 2005;[120] Sibthorpe et al. 2004).[121]	Descriptive paper.	Academic nursing faculty. Nurses. Large Midwestern hospital. USA.	Nursing faculty mentors as facilitators for evidence-based nursing practice. Role of mentor: to assist the organization in facilitating use of evidence in practice; contacting nurses interested in developing EBP; arranging group meetings. The mentor listened and identified researchable questions, obtained evidence for the practice problems. After several of these attempts by the mentor the nurses began formulating practice questions and participated in researching and gathering evidence.
Kaasalainen 2015[122]	To explore the role of a clinical nurse specialist (CNS) and nurse practitioner (NP) as change champions during the implementation of an evidence-based pain protocol in long-term care (LTC).	Ottawa Model of Research Use[123]	Qualitative. Multiple case study design. Participant observation, diaries, interviews, focus groups one with care aides and one with nurses (n=28).	Clinical nurse specialists, nurse practitioners, RNs, RPNs, care aides in two LTC facilities. Canada.	NPs and CNS were change champions for implementing the pain protocol. "Change champions have been defined as 'individuals who dedicated themselves to supporting, marketing and driving through an innovation' (p. 79). "They used a variety of strategies including educational outreach, reminders to nursing staff to highlight the pain protocol and educate about practice changes, chart audits and feedback to nursing staff, interdisciplinary working group meetings" (p. 78) and maintaining positive relationships with staff. CNS and NPs were found to be ideal champions for the protocol implementation.
Kajermo 2001[124]	This paper explores nurses' reactions on their experiences of disseminating and implementing research findings in clinical practice within the framework of an educational programme.	Quality improvement and Lewin's change process (Warren & Heermann, 1998).[125]	Mixed methods. Educational programme; focus groups.	N=10 nurses were included in the educational programme. Two acute-care teaching hospitals and a nursing home. Sweden.	Change agents: trained nurses in research design and methodology. The change agents had a role to select and present research findings relevant to practice in the form of poster presentations and research seminars, and to introduce and carry through a research-based innovation.
Kavanagh 2007[126]	To examine factors for the effective implementation of evidence-based acute pain practices in paediatric nursing.	PARIHS framework; Schein's theory of organizational culture and leadership.	Descriptive paper.	Nurses.	Facilitation: "...the act of making things easier for others" (p. 311; citing Kitson et al. 1998). Champion: "...an individual (e.g., a nurse) who works to overcome indifference or resistance to an innovation (e.g., acute pain management evidence) by members of an organization by supporting that innovation and its use in practice (Rogers, 2003)." (p. 312)"Effective facilitators consciously use a series of interpersonal and group skills to achieve change (Kitson et al., 1998). Rather than using professional status or technical competence to drive change (e.g., as in the case of an opinion leader), a successful facilitator works to decentralize control within the clinical setting. Through the sharing of responsibility and supporting team members to become self-directed learners and to achieve individual goals, a culture is thus created that may be better equipped to sustain implemented change." (p. 313); this is best achieved by an external facilitator who is an expert in the management of change and skilled at working at both macro and micro levels of the organization. Facilitators possess skills that enable them to rebuild cultures resistant to the use of acute pain evidence in nursing practice; Range of skills required to affect change: teaching, coaching, problem solving, communication skills.

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Kelly 2002[127]	This article describes how an action research approach was used to establish the clinical practice facilitator (CPF) role in a variety of clinical areas across a large inner-city National Health Service Trust. It outlines the evaluation undertaken and the further contribution that such roles could provide.	Not indicated.	Mixed methods. Action research. Questionnaire s; educational audits; recruitment and retention data.	Senior nurses and nursing staff. Hospital. UK.	Clinical practice facilitator role: Developing effective working relationships with ward managers, coping with other people's expectations against the reality of constraints, developing clinical skills teaching programmes, and finding the most appropriate way to support healthcare assistants. Other factors that had to be negotiated included accessing resources (such as teaching equipment), time management, establishing communication channels, and establishing a profile across the trust as a whole." (p. 95) -approachable, gives support, motivates staff.
Kitson 1998[128]	This paper offers a conceptual framework showing how it might work in clarifying some of the theoretical positions and as a checklist for staff to assess what they need to do to successfully implement research into practice.	Development of the PARIHS framework.	Theoretical paper.	Healthcare providers.	Facilitation: is a technique by which one person makes things easier for others (from Heron, 1989);[129] to help people change their attitudes, habits, skills, ways of thinking, and working. Facilitator: "...people who make things easier, help others towards achieving particular goals, encourage others, and promote action." (p. 152). Role of the facilitator: - facilitator's job is to help people understand what they have to change and how they change it to achieve the desired outcome - facilitators consciously use a series of interpersonal and group skills to achieve change Personal characteristics of facilitators: - openness, supportiveness, approachability, reliability, self-confidence, and the ability to think laterally and non-judgmentally - clarity around the facilitator's role, status, and intended purpose are vital as are the skills, knowledge, and style - internal vs. external facilitator - facilitators bring with them a personal repertoire of skills, as well as an ability to work within and across role and structural boundaries in the organisation - opinion leaders may influence more because of their status and technical competence.
Kitson 2008[130]	The paper provides an integrated summary of our conceptual and theoretical thinking so far and introduces a typology (derived from social policy analysis) used to distinguish between the terms conceptual framework, theory and model – important definitional and conceptual issues in trying to refine theoretical and methodological approaches to knowledge translation.	Development of the PARIHS framework.	Theoretical paper.	Healthcare providers.	Facilitation: "a technique by which one person makes things easier for others" borrowed from Harvey et al. (2002). Role of facilitator: "...is to construct a programme of change that meets the individual and team's learning needs. Facilitators work with individuals and teams to enhance the process of implementation. "From Harvey et al.'s concept analysis the following positions have emerged: 1. Facilitation is a process that depends upon the person (the facilitator) carrying out the role with the appropriate skills, personal attributes, and knowledge. 2. The purpose of facilitation varies from providing help and support to achieve a goal to enabling individuals and teams to analyse, reflect, and change their own attitudes, behaviours, and ways of working. 3. A "facilitation continuum" has been described, which distinguishes between a "doing for others" role (more discrete, practical, technical and task driven) on the one side to an "enabling and empowering" role which is more developmental, seeking to mentor, guide and support the staff within the system to take control of their own learning and change processes. 4. Facilitation skills are developed through experiential learning [40], and more recently through the acquisition of key facilitation competencies [41]. 5. Facilitation as a discrete intervention has been described in the practice development

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					movement in nursing [42-44] and in the quality improvement literature" (p. 9) The purpose can be technical e.g. introducing a discrete method or "holistic" sustaining and enabling personal development and system transformation Method contingent on diagnosis of individual/team understanding/ acceptance of evidence and receptiveness for change of context; Facilitation models can range from "doing for others" to "enabling others". Doing for others covers episodic contact offering practical help using external change agents. Enabling others focuses more on sustaining partnerships, developing individual potential and encouraging self-directed learning.
Kitson 2016[131]	To explore the evidence around facilitation as intervention for the successful implementation of new knowledge into clinical practice.	Integrated PARIHS framework (i-PARIHS).	Theoretical paper.	N/A	Authors describe their revised PARIHS framework called i-PARIHS. "The i-PARIHS framework posits that evidence is a multidimensional construct embedded within innovation and operationalized by clinicians (individuals and within teams), working across multiple layers of context. Facilitation is the active ingredient that promotes successful implementation." (p. 294) Facilitation roles can be divided into beginner, experienced and expert facilitators. For example, the novice facilitator is skilled at clarifying tasks, and identifying key stakeholders; experienced facilitators support novices, assess system-wide activities and contextual issues, and develops skills in sustaining change; expert facilitators are positioned at a strategic level to provide project coordination and leadership for the initiative, and includes engaging stakeholders and political negotiation skills. Facilitators can be internal or external to the organization they work in.
Kousgaard 2012[132]	"This article explores the experiences and assessments of GPs and nurses participating in a project in which a medical specialist (endocrinologist) acted as a facilitator for quality improvement" (p. 1).	Not indicated.	Qualitative. Observations; interviews.	13 GPs and 4 nurses from 9 different clinics; 1 endocrinologist (facilitator). In the Capital Region of Denmark.	Facilitation: "providing 'expertise in the clinical area addressed by the intervention.' Each of the 9 clinics were randomly assigned to 1 of the 3 interaction forms: (1) face-to-face meeting; (2) group meeting; or (3) telephone meeting. The facilitation sessions focused mainly on pharmacological issues related to diabetes treatment. The facilitator did not visit all the participating clinics in person.
Lekalakala-Mokgele 2005[133]	"The aim of this study was to develop a model for the process of facilitation in nursing education." (p. 24)	Not indicated.	Qualitative. Focus groups.	Facilitators and students (learners) in departments of nursing of four universities. South Africa.	Facilitator: "the person responsible for helping the learners to construct knowledge" (p. 25). Facilitation is the central concept in this model, it is both a method and a strategy for learning. Facilitation promotes critical thinking in the learners and both become reflective learners. (p.25). Facilitators help learners to construct knowledge. Qualities: self-awareness; approachable; empathetic; sensitive; non-dominant; patient; openness; flexibility. Roles: provide structure for learning; guide the learners; identify learning resources; create a climate conducive to learning; encourage cultural competence; motivate learners; support them in theoretical and clinical settings; act as a role model.
Lemelin 2001[134]	To describe an RCT of a tailored multifaceted intervention to improve preventive care in capitation-based family practices.	Not indicated.	Quantitative. Randomized controlled trial.	Nurses and physicians. N=46 health service organizations (HSOs) were recruited from Ontario. Canada.	Nurse facilitators. Practices were randomly assigned to either an 18-month tailored multifaceted intervention delivered by 1 of 3 nurse facilitators (23 practices) or no intervention (23 practices). Facilitators had master's degrees in community nursing and experience in facilitation and completed additional facilitation training. Facilitators completed a 30 week intensive training program before being assigned to intervention practices. Facilitators used 7 intervention strategies identified from reviews of the literature. Facilitators discussed the strategies with the physicians and practice staff, working with them to adapt the strategies to the practice needs and wishes. They gave performance feedback using mini audits. Intervention lasted 18 months (33

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					average visits).
Liddy 2013[135]	"To provide a general background on practice facilitation, describe current practice facilitation programs and studies in Canada, identify the gaps in research and implementation, and suggest future directions to address these gaps" (p. 60).	Not indicated.	Descriptive paper.	N/A	Practice facilitators "engage and build a partnership with providers over time. They work with practices to identify areas for improvement (often through audit and feedback), set goals for care improvement, provide tools and approaches to reach these goals and follow up regularly with the practices to support change" (p. 60). Practice facilitators help them change their clinical practices by adopting evidence-based approaches more readily and effectively.
Lindenfeld 2001[136]	The article discusses the use of continuous quality improvement (CQI) methods in nephrology/dialysis care.	Not indicated.	Descriptive paper.	Physicians/nephrologist s/ medical director.	Facilitator role. Essential components of the CQI methodology include the use of a multidisciplinary team; participative management; a consistent process, well understood by all team members; a content expert (team leader); and a trained facilitator. Functions performed by the facilitator: moving through the CQI team process one item at a time; facilitating discussion; helping the team choose appropriate discussion and decision methods; assuring that inter-meeting action items are completed.
Linnebur 2011[137]	"To evaluate the impact of a multidisciplinary intervention that included academic detailing on adherence to national nursing home-acquired pneumonia (NHAP) guidelines related to use of antibiotics" (p.442).	None	Quantitative. Quasi-experimental.	Intervention: 8 nursing homes in Colorado; Control: 8 nursing homes in Kansas and Missouri. USA.	"Interventions included (1) educational sessions for nurses to improve recognition and timely treatment of NHAP symptoms and (2) academic detailing to clinicians by pharmacists regarding diagnostic and prescribing practices" (p. 442). Follow-up telephone calls were made approximately 3 months after the initial visit to reinforce the care pathway.
Locca 2009[138]	This study aimed to assess the implementation process of the new compulsory pharmaceutical care service (PCS) within all Fribourg nursing homes since its start in 2002. (p.165)	Comprehensive framework developed for implementing a new specific pharmaceutical care service adapted and modified from Holland et al. (1999).[139]	Quantitative. Assess implementation process.	N=22 pharmacists. The setting was 42 nursing homes located in the canton of Fribourg, Switzerland.	Facilitators of practice change: represent key elements to assist pharmacists in their implementation process. We developed different facilitators, such as a monitoring system, a coaching program, and a research project, to help pharmacists change their practice and to improve implementation of this new service. Three groups of facilitators: (1) the coaching program: appointment of an academic expert as supervisor; appointment of a pharmacist as regional coordinator; working session with pharmacists; individual feedback to pharmacists; organization of interdisciplinary symposia and training courses (2) the monitoring system: definition of a set of specific indicators; annual benchmarking report and feedback to nursing homes; control by healthcare authorities and insurers. (3) the research project: continuing scientific evaluation of the service (economic & therapeutic); development of evidence-based therapeutic recommendations adapted to nursing homes practice; continuous quality improvement.
Locock 2001[140]	To present findings from evaluations of two government-funded initiatives exploring the transfer of research	Not indicated.	Mixed methods. Questionnaire s, document analysis,	Project 1 (PACE): N=330 front line clinicians, project team members, and senior managers.	Opinion leaders: "...those perceived as having particular influence on the beliefs and actions of their colleagues in any direction, whether 'positive' (in the eyes of those trying to achieve change) or 'negative'." (p. 746). The opinion leaders generally emerged at a more informal, opportunistic and implicit level. Opinion leaders acted as mediators and translators in this process of explaining the available evidence, adapting guidelines to take account of local views and circumstances, and

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	evidence into clinical practice- the PACE Programme (Promoting Action on Clinical Effectiveness), and the Welsh Clinical Effectiveness Initiative National Demonstration Projects.		interviews.	Project 2 (Wales): N=321 front line clinicians, project team members, and senior managers. Four sites: primary and secondary care. UK.	generating the necessary consensus.
Logan 1995[141]	To describe a project in which staff nurses fulfil the role of Nursing Research Facilitators.	Not indicated.	Quantitative. Workshops; questionnaires .	N= 32 nursing research facilitators (nurses). Canada.	Staff nurses were trained to be nurse research facilitators through workshops. The nursing research facilitator is a staff nurse who is trained in research methodology and critical appraisal who reads journal articles to be informed of best evidence and then disseminates the knowledge on the unit through communication with their peers.
Lomas 1991[142]	This study evaluates, in a randomized controlled trial with community hospital physicians, two strategies (audit and feedback and education using physicians nominated by their colleagues as opinion leaders) for encouraging local implementation of a surgical practice guideline.	Not indicated.	Quantitative. Randomized controlled trial.	N=76 physicians; N=16 community hospitals. Canada.	Opinion leader (OL): A peer nominated individual who is thought to be clinically and educationally influential. Three groups: (1) audit and feedback (2) opinion leader education (3) control Role of opinion leader: (1) an information binder for each physician engaged in obstetrical care (The binder contained two "detailing" sheets with information from the practice guideline). (2) mailed, for later inclusion in the binder, two further detailing sheets addressing topics that the OLs agreed were of concern to colleagues who might wish to consider implementing the recommendations of the practice guideline. (3) hosted, in the community, a meeting with an expert speaker who was both knowledgeable and credible in the area of vaginal birth after caesarean section. (4) maintained and enhanced their regular formal and informal educational contacts with colleagues and recorded these contacts in logbooks for the 12 months of active.
Lombarts 2005[143]	To evaluate the impact of facilitation by management consultants in implementing recommendations from external quality assessment.	Not indicated.	Quantitative. Intervention study; survey.	N=205 medical specialists representing 50 hospital-based specialist groups (e.g., surgeons, gynaecologists, paediatricians). Netherlands.	Facilitation by management consultants. Intervention: Consultants supported the implementation of the recommendations by providing 20 hours of management support (Quality Consultation) to facilitate implementation. The QC toolkit consisted of various support methods, both non-participatory (such as sending educational materials and writing practice specific documents) and participatory (requiring active involvement of the specialists, such as meetings with the consultant). Which interventions were applied depended on the recommendations to be implemented, the local context, the specialist group and the consultant. All specialist groups were offered multiple interventions. (p. 589)
MacIntosh-Murray 2005[144]	To develop an in-depth understanding of the beliefs, values, and practices about change, patient safety,	Not indicated.	Qualitative. Ethnographic case study.	N=26 nurses. Medical unit in a large tertiary care hospital. Canada.	Boundary Spanner: "...emphasizes the bridging or "go between" activities and communication with people outside the nurses' circle of knowing the patient. (p. 1335). Boundary spanner: Meets regularly with internal network of peers who perform similar functions in the hospital.

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	adverse events, and information; the way information about adverse events, near misses, and risks is perceived and managed in the unit; and the internal and external information resources that are used.				Information/change agent: -Acting as a <i>boundary spanner</i> bridging three types of gaps: (1) between the nurses' patient level of focus and the system and process levels, (2) between the front-line and management, and (3) between the nurses on the unit and resources outside the unit -Recognizing patient safety issues and acting as an <i>information seeker</i> for front-line nurses, identifying their needs and seeking appropriate information • Using the information (research, policies, procedures, standards) as a <i>knowledge translator</i> to explain to the nurses how it applies to their practice • Actively intervening as a <i>change champion</i> with "just-in-time" education, change initiatives, and ongoing coaching.
Mader 2016[145]	To evaluate the efficacy and feasibility of combining practice facilitation and academic detailing quality improvement (QI) strategies to help primary care practices increase breast, cervical, and colorectal cancer screening (CRC) among patients.	Not indicated.	Mixed methods. Screening rates, surveys, focus groups, interviews, electronic health-based reports.	Primary care providers (physicians, nurses) N = 23 primary care practices. USA.	"Practices received a 1-hour academic detailing session addressing current cancer screening guidelines and best practices, followed by 6 months of practice facilitation to implement evidence-based interventions aimed at increasing patient screening." (p.533). Practice facilitation (PF) was provided by 1 of 4 trained PFs. PFs had formal training in QI coaching with a minimum of 2 years' experience in the field. The PF intervention targeted evidence-based strategies to increase breast cancer, cervical cancer, and CRC screening. "Combining practice facilitation and academic detailing is one method through which primary care practices can achieve systems-level changes to better manage patient population health." (p.533).
Majumdar 2007[146]	To evaluate whether patient-specific and condition-specific one-page evidence summaries, generated and endorsed by local opinion leaders, would improve prescribing for patients with heart failure and those with ischemic heart disease.	Not indicated.	Quantitative. Randomized controlled trial.	Physicians. Primary care. Canada.	Local opinion leader: educationally and socially influential physicians. Opinion leaders are physicians nominated by their peers as educationally influential and as those who exert influence over others because they are well known, respected, and trusted. Opinion leader intervention or usual care based on randomization of patients' primary care physician. Opinion leaders were identified by primary physicians; these opinion leaders in-turn generated and mail to the physicians a one page evidence summary that identified patients and their diagnosis, and briefly described the key evidence in support of the study medications. Intervention consisted of patient-specific one-page evidence summaries, generated and endorsed by local opinion leaders.
Markey 2001[147]	To measure the impact of academic detailing on general practitioners (GPs) attitudes and knowledge of evidence-based medicine (EBM).	Not indicated.	Quantitative. Randomized controlled trial.	N=132 GPs. Australia.	GPs randomized to one of two groups: receive academic detailing during the study period or to be visited at a later date. The practice visit consisted of a 30-45min discussion about EBM and the barriers to its practice.
Matthew-Maich 2013[148]	To better understand complex, multifaceted, contextual processes using an approach designed to illuminate them and to generate a grounded theory of the processes that support the implementation and uptake of BPGs in nursing	Not indicated.	Qualitative. Constructivist grounded theory.	Postpartum, birthing, special care nurseries and paediatric units in three hospitals in Ontario, Canada; 58 health professionals and 54 clients	"Facilitation is defined as the process of supporting and enabling clinicians to enhance practice through evidence uptake (Rycroft-Malone 2004)" (p. 1760). "Strategies that consistently fostered uptake in this study and are either new or underdeveloped in the KT literature include facilitating: getting feedback about client outcomes, critical reflecting, trialling new practices and tailoring strategies to individual and group needs" (p. 1766).

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	practice to inform future implementation efforts.				
McCleary 2004[149]	To examine the pain resource nurse (PRN) role in a pediatric setting, to describe the components of the role, the activities PRNs engaged in, the challenges they faced, and the supports that helped them to achieve this role.	Not indicated.	Qualitative. Focus groups.	N=18 staff nurses, clinical nurse specialists, clinical leaders. Pediatric teaching hospital. Canada.	Pain resource nurse (as facilitator): nurses who received special education about pain management and were trained to initiate unit activities related to pain management. The committee's vision was that designating clinical nurses to act as PRNs would provide accessible and immediate support for nurses' best practices in pain management "at the bedside." The PRNs were to act as resources, coaches, mentors, role models, and champions for improved pain management. Each of the 11 units nominated two or three nurses to act as PRNs. The PRNs described their colleagues as their most important support.
McWilliam 2009[150]	This paper presents phenomenological investigation of the second cycle of a participatory action KT intervention in the home care sector to answer the question: What is the nature of the process of implementing KT through social interaction?	Knowledge to action framework; PARIHS framework.	Qualitative. Participatory action approach; Social phenomenology	N=203 service providers, case managers, administrators, and researchers. Six home care programs. Canada.	Facilitation by skilled external and internal personnel is recommended to enable teams and individuals undertaking knowledge translation (KT) to analyze, reflect upon, and change their own attitudes and behaviours, and particularize research findings. Role of facilitators: "In addition to the publications, audiovisual presentations, illustrative case studies, and consultations provided in the first action cycle, in this second cycle, the researchers (who had functioned as external facilitators in the first action cycle) served as resource personnel and provided backstaging." -transformative leadership; -internal (managers) and external (researchers) facilitators; Action groups set their own meeting times at approximately monthly intervals over an eight-month period.
Mellor 2004[151]	The article reflects on the different aspects of the role of a clinical facilitator and the development of a care pathway project in palliative care in the UK.	Not indicated.	Quantitative. Pilot study.	Nurses. Hospital. UK.	A clinical facilitator was appointed to facilitate the introduction of the Liverpool Care Pathway for the Dying (LCP). This full time post, which existed for 18 months, involved supporting and educating staff about the pathway; - teaching sessions took place away from the ward and usually lasted 1-2 hours - acted as intermediary to help realize the potential of the LCP -professional interest and education in the field of palliative care - liaised with wards familiar with the pathway - organized ward based teaching sessions (structured formal teaching sessions) - visited wards daily to review all patients with the nursing staff - helped inter-staff communication and help staff communicate with the patients' relatives - the clinical facilitator was an employee of the hospital who was specifically trained/educated for the role - the facilitator had a managerial role and was known to many of the clinical staff and senior members of the medical team.
Michael 2007[152]	This paper describes facilitating nursing research for perioperative nurses.	Not indicated.	Descriptive paper.	Nurses. Australia.	Nursing consultants (i.e. research perioperative nursing consultants): -have joint appointments between hospitals and universities; -appointments provide powerful role models to increase research use; -these individuals have the responsibility to conduct clinical research that is relevant to the clinical area to promote research use; -they can also give seminars, in-service programs, and workshops.

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Miller 2006[153]	This review focuses on methods for effectively disseminating new substance abuse treatment methods into practice.	Rogers Diffusion of Innovation theory.	Literature review.	Healthcare providers.	Coach: proficient expert, who is on-site and provides ongoing training, coaching and supervision (to support evidence-based practice). Expert coaching is an established technique for improving performance, and positive reinforcement for improving performance is another well-established behavioral principle. An onsite mentor is helpful not only in acquiring the specific skills of a new treatment but also in supporting persistence in behavior change efforts. Follow-up contact (e.g., ongoing coaching, supervision, or booster sessions) significantly enhances change in practice behavior.
Minnick 2008[154]	To describe (a) the feasibility of nurse coaches (NCs) as interventionists in delivering the Virtual Integrated Practice (VIP) quality improvement intervention and (b) the extent of treatment fidelity in terms of delivery and receipt.	Not indicated.	Mixed methods. Intervention study; interviews.	Nurses and physicians. Primary care. N=3 sites. USA.	Nurse Coach: ... a catalyst and facilitator of practice adaptation and integration of VIP tools and processes into the practice, thus improving patient care processes. A part-time nurse coach was implemented to assist in improving existing systems and develop new programs if performance improvement was demonstrated. Role as advisor, observer and change agent and who does not have direct patient contact or clinical and administrative responsibilities. Training involved role playing that allowed NCs to practice delivery of the intervention.
Mold 2008[155]	To determine the effectiveness of a multicomponent quality improvement intervention that included feedback with benchmarking, academic detailing, practice facilitation, and information technology (IT) support.	Not indicated.	Quantitative. Randomized controlled trial.	Nurses and physicians. N=24 practices. USA.	One clinician/nurse team from each of 24 practices was randomly assigned to one of 2 study arms: Comparing a multicomponent quality improvement intervention (including facilitation) to feedback and benchmarking to support implementation of evidence-based processes for delivering preventive services. Intervention practices received performance feedback, peer-to- peer education (academic detailing), a practice facilitator, and computer (information technology) support; providing prompts, reminders. Practice facilitators were called practice enhancement assistants (PEAs) and were available, on average, one-half day per week .
Moriarty 2007[156]	To describe and evaluate the implementation of two Macmillan nurse facilitator posts.	Not indicated.	Qualitative. Case study; interviews; observation.	N=2 Macmillan nurse facilitators. Community nursing staff, service managers, the post-holders and other health service professionals. Community setting. UK.	Facilitators: nurses who were trained for the role of a facilitator based on the model of peer facilitation. Activities: Planning and facilitation of educational programmes (the facilitators taught some of the programmes); carried out needs assessment prior to education programmes; establishment of a palliative resource nurse network; this was a network of community nurses across the city with a special interest in palliative care and with a level of advanced skills and knowledge, who would be able to act as a resource and support to colleagues in the primary healthcare team. Promotion of clinical guidelines and standards; 'dual role': they served as facilitators and continued to work as district nurses, therefore they served as <i>peer-facilitators</i> . Two Macmillan nurse facilitator posts were set up with the overall aims of enhancing the quality of palliative care to patients in the community by mobilising the existing skills and supporting the development of new competencies by community nurses.

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Muller 2011[157]	"To describe the role development of the CNS at HUP [Hospital of the University of Pennsylvania] as it occurred concurrently with the establishment of the HUP Nursing Model of Excellence in Professional Practice" (p. 141).	Briefly mentions Benner et al. Novice to Expert theory.	Descriptive paper.	Hospital of the University of Pennsylvania, USA.	"Integrating the CNS role as the nursing department knowledge keepers, knowledge seekers and knowledge disseminators able to proactively develop and enhance interdisciplinary partnerships required systematic education sessions and use of outcome measurement tools [a quarterly scorecard (survey)]" (p.140). "To accomplish a standardized expression of the CNS role, a series of lectures and workshops were held during the monthly group meetings" (p. 142-143). "The CNSs' role expanded to include a major system focus when they became the leaders of project teams titled "Champions of Change" (COC) that were focused on bringing implementation strategies for EBP to the bedside clinicians" (p. 148). "The COC meetings consisted of CNSs and CNSs sharing outcomes and strategies for overcoming barriers, and techniques for facilitating effective practice change were critical in sustaining momentum and problem solving while embedding lasting improvement" (p. 148).
Nagykaldi 2005[158]	This study's objective was to review the literature on practice facilitators and describe their origin, training, funding, roles, methods they use, and their impact on patient care outcomes in primary care.	Not indicated.	Literature review.	Healthcare providers. Four databases searched.	Practice facilitator: a healthcare professional who assists primary care clinicians in research and quality improvement projects. Training included methods of communication and collaboration, the audit cycle and its application in general practice, standard setting with practice teams, principles of data collection and analysis, managing change, and encouraging teamwork. The practice facilitators who were hired usually had previous healthcare training, such as work as practice assistants, health visitors, or masters of community nursing. They promote prevention in primary care; serve as a resource for practices that want to develop evidence-based behavioral interventions; assist with implementation of guidelines. - can participate in clinical research as research assistants (help bridge gap between academic research and clinicians) - help raise awareness, increase practice knowledge, strengthen partnerships, and help with consensus building - nurse training and empowerment has been an important aspect of the facilitator's work
Nagykaldi 2006[159]	This article describes how practice-based research networks (PBRNs) in the United States adapted the practice facilitator model and provides some practical examples from four networks.	Not indicated.	Descriptive paper.	Healthcare providers. USA.	Practice facilitator: help primary care practices participate in both research and quality improvement projects. Important to build a good relationship with practices and become members of the practice team for a sustained period of time. Activities: Practice facilitators usually interact with a "champion" physician or practice leader as well as key personnel to ensure proper communication with the practice team; - use a variety of methods including "rapid QI plan-do-study-act cycles, change management strategies, "best practices" methodologies, health information technology, and social interaction in combination with conventional QI techniques. (p. 507). Practice facilitators connect academic institutions with primary care practices; they are in ideal position to help translate research findings into practice.
Newton 2003[160]	This paper presents an overview of the concept of facilitation within the context of practice development, ahead of a personal and professional reflective account of a developing facilitator.	PARIHS framework.	Descriptive paper.	Healthcare providers. Australia.	Facilitation: a technique by which one person makes things easier for others (PARIHS definition). Facilitation is achieved by a person (Harvey et al. 2002) carrying out a specific role (a facilitator) which aims to help others and in doing so implies that facilitators have purpose, roles, skills and knowledge to help individuals, teams, and organizations. - "...facilitation centralises on the processes of critical reflection, experiential learning and changing practice cultures, and can utilise different modes providing a range of varying support--technical, practical and emancipatory--during the change process (Harvey et al 2002)." Skills and attributes of a facilitator: - drawing on McGill and Beaty (2001)[161] the author argues that the core qualities of a

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					<p>facilitator are:</p> <ul style="list-style-type: none"> - the facilitator is genuine, real and congruent - communication and interpersonal skills are a prerequisite for any facilitation role, which the facilitator can apply according to the context.
O'Brien 2008[162]	To assess the effects of Educational Outreach Visits (EOV) on health professional practice or patient outcomes.	Not indicated.	Systematic review.	Healthcare providers. Authors searched the Cochrane EPOC register to March 2007. This is an update review. In their original review authors searched multiple databases including Medline and CINAHL.	Educational outreach visits: a personal visit by a trained person to healthcare professionals in their own settings. The intervention may be tailored based upon previously identified barriers to change. In 41 trials, the visits were held individually; the remaining were group visits. In most trials, one or two visits were made.
Olson 2010[163]	To describe how teams produced, obtained, and used knowledge and information to bring about successful change (in the context of antimicrobial resistance education).	Soft Knowledge Systems theory (Engel 1997).[164]	Qualitative. Cross-case study; interviews, archival document review; direct observation.	Healthcare providers. Academic medical center; intensive care unit in a medium-sized community hospital; a small community hospital. USA.	<p>Champion: healthcare professionals who advocated the innovation/change. Each project had more than one champion, only some of whom were physicians.</p> <p>Roles:</p> <ul style="list-style-type: none"> - demonstrated commitment to the endeavor, giving time and energy to the innovation; - served as advocates and messengers regarding the change; - served as liaisons with other physicians in order to obtain approval and advocate throughout the organization for the innovation; - actively supported the implementation process; - their roles were as messengers and change agents; - oversaw the implementation, monitored progress and solved problems as they arose.
Pannucci 2011[165]	"This article presents a "how-to" guide for implementation of a venous thromboembolism prophylaxis protocol" (p.1085).	Not indicated.	Quantitative. Pre/ Post-intervention.	Multicenter study at the University of Michigan, University of Texas Southwestern, Regions Hospital in St. Paul, Minnesota, and the University of Pittsburgh.- staff and surgeons. USA.	"The project champion is an individual or individuals who has commitment to the project, has adequate time and energy to devote to the innovation, and, most importantly, serves as a vocal and visible advocate regarding change" (p. 1087). "Interventions included staff and surgeon educational sessions, discussion of venous thromboembolism-themed articles at journal club, and monthly e-mail reminders specific to the protocol" (p. 1085). "The physician champions were charged with identifying and educating key stakeholders. "Ongoing education was provided by the physician champions to staff, residents, and plastic surgery physician assistants using monthly e-mails and journal clubs" (p.1087).
Parchman 2013[166]	To assess practice facilitation as an intervention to improve the delivery of diabetes care in primary care.	Chronic care model[167]	Quantitative. Stepped-wedge design; group randomized trial.	Clinicians, staff, and nurses at primary care practices (n=40 practices). USA.	Practice facilitators (PFs) (external) were trained in the use of multiple tools including: group/shared medical appointments, a diabetes registry, point-of-care HbA1c testing; resources and approaches to patient education, activation and planned diabetes visits with clinical reminders and decision support for providers and staff (p.2). PFs held a minimum of 6 one-hour team meetings within each practice over a 12-month period of time. Practices in the initial intervention group received a mean of 6.7 visits and those in the delayed intervention 7.2 visits (range 5-10). Results showed a significant improvement in the degree to which care was consistent with the model, and this improvement was sustained for 1 year following the PF intervention.

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Pattinson 2005[168]	To test the effectiveness of two different outreach strategies built around a multimedia educational package designed to facilitate the implementation of kangaroo mother care (KMC) in healthcare facilities.	Not indicated.	Quantitative. Randomized two group study.	Healthcare providers. N=37 hospitals. South Africa.	Randomized 2 group study: 3 sites used as pilot studies on the use of tele-facilitation for implementing KMC, the remaining 34 were paired with another hospital in similar location and annual number of births. They were randomly assigned to either group A or B. Group A received the package alone and group B received the package plus facilitation. (package consisted of a workbook, a reader, two videos, a teaching poster and some examples of records and policy documents). Hospitals in group B received two group facilitation visits and one site visit by the facilitator. Facilitation lasted about 3 h, and the facilitator helped the participants through the workbook and answered questions.
Penz 2006[169]	The paper outlines the issues inhibiting evidence-based nursing, such as time factors, access to information and resources, nurses' research knowledge, skills and learning opportunities and the current nursing culture.	Not indicated.	Descriptive paper.	Nurses.	Clinical nurse educator as facilitator of evidence-based nursing within the clinical practice setting. They must have a sound educational foundation in evidence-based nursing. Clinical nurse educators have the opportunity to promote best evidence-based nursing practices. Clinical nurse educators can provide support by setting up computer links to local library databases, providing relevant systematic reviews that summarize findings, circulating valid and reliable research literature within clinical settings, and introducing nurses to the Cochrane Library and the journal: Evidence-Based Nursing.
Pepler 2006[170]	To describe strategies used to facilitate research utilization (RU) by nurses in a practice setting.	Not indicated.	Mixed methods. Multiple case study; focus groups; interviews; observation; questionnaires .	N=107 staff nurses (questionnaire). Interviews conducted with nurses, head nurses, clinical nurse specialists (CNSs) and clinical nurse educators (CNEs). Eight units in four sites of a university hospital.	Clinical nurse specialists and clinical nurse educators can be important facilitators for the development of research utilization. Their expertise as clinicians and their knowledge of scientific investigations give them the skill to promote the establishment of relevant links between research and practice. Numerous strategies were required to facilitate the use of research as the basis for nursing practice. Most CNSs and CNEs showed a wide variety of skills, the response to strategies across different units varied, reflecting the different unit culture in which these master's degree-prepared nurses attempted to influence change. It takes various strategies to ensure that all nurses recognize the benefit of research as a basis for practice in patient care; daily presence; Many of the strategies were focused on overcoming staff resistance to using research as a basis for practice; facilitating learning by directing staff toward appropriate resources.
Pereles 2003[171]	To examine data emanating from an evaluation of an opinion leader (OL) study to understand what OLs did, how they saw themselves, how they assumed their roles as OLs following training and their comfort with their roles as well as to discern those aspects of an OL initiative that appeared to contribute	Not indicated.	Qualitative (part of an evaluation of a larger initiative). Structured interviews.	Two communities: A=southern USA and B=northeast USA. Group A: N= 5 opinion leaders (physicians); Group B: N=8 opinion leaders (physicians). USA.	Opinion leaders were selected in each community through surveys of the medical staff prior to the initiation of the program. Once the OLs were chosen they were trained over a weekend. OL groups met every 2- months, the projects each community were over one year. At the end of the project each OL was interviewed. Opinion leaders possess two sets of attributes: expertise and currency of knowledge along with good interpersonal skills that enable them to communicate effectively with their peers. Their broad general knowledge, willingness to answer questions and humanistic communication style informally facilitate learning and change in the practice behavior of their colleagues. OL commitment to the initiative; Ideally an OL requires some expertise, preferably through a certification-type designation or focused and extensive clinical work over many years, for his/her own comfort as an OL as well as

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	to success.				recognition by peers.
Petrova 2010[172]	(i) To describe the variety of facilitation models that emerged in translating the common Gold Standards Framework (GSF) platform into real life facilitation of more than 1300 practices and (ii) to explore, where data permitted, the impact of different facilitation characteristics on the degree of change achieved by practices.	Not indicated.	Mixed methods. Questionnaire s; interviews.	N=102 facilitators (e.g., physicians, district nurses, clinical nurse specialists) completed a questionnaire; interviews were conducted with n=9 facilitators. Primary care organizations and general practices. England and Northern Ireland.	Facilitator: "... a 'catalyst for change', as someone who 'helps forward' and 'gives direction, by drawing upon their own experience'." (p. 38). Facilitation: "... the process of providing support to individuals or groups to achieve beneficial change." (p. 38); 'the provision of opportunity, resources, encouragement and support for the group to succeed in achieving its own objectives and to do this through enabling the group to take control and responsibility for the way they proceed. The facilitators' tools of trade consist primarily of knowledge, skills and techniques for structuring and driving a process of change and occasionally expertise in the clinical area addressed by the intervention. Facilitator types: driver of practice change; partner in practice change; available if requested support for practice change; All facilitators received nationally coordinated training, which aimed to ensure that they started from a common facilitation platform. The facilitators had two primary tasks: recruiting practices and supporting their implementation of the programme. A number of facilitators also engaged in 'meta-support' activities: they worked more broadly on developing local palliative care services and/or developing palliative care-related tools and resources. Facilitators delivered support through different media—telephone, email or personal visits. The number of visits made to practices over a year ranged from none to 20, with most facilitators visiting their practices two to three times per year; create a facilitative infrastructure, such as through the development of new policies or the restructuring of local services.
Plamondon 2013[173]	To describe the role of nursing research facilitators (NRF) in engaging nurses and other healthcare providers in research and evidence-informed practice.	Not indicated.	Descriptive paper.	Canada.	Nursing research facilitators' role includes enabling research, evidence-informed practice, knowledge translation, partnership building, and facilitation. NRFs enable positive introductions to research, identify high quality research, facilitate mentoring relationships and provide support to carry research activity from question to dissemination of findings.
Ploeg 2007[174]	This paper reports on the perception of administrators, staff, and project leaders about factors influencing implementation of a nursing best practice guideline.	Not indicated.	Qualitative (part of a larger before and after study). Semi-structured interviews.	N=22 agencies across the province of Ontario, including hospitals, long-term care agencies and community care organizations. Interviews conducted with N=125 individuals: N=8 clinical resource nurses; N=58 staff; N=59 administrators. Canada.	Unit-based champions. The presence of unit-based champions was noted as a key facilitator most commonly by administrators. Administrators emphasized the importance of having a person dedicated to lead implementation, facilitate activities, and encourage forward momentum of the process. Training people to act as champions; Leadership support; creating and supporting an organizational vision that embraced evidence-based practice.
Ploeg 2010[175]	"To determine how nursing best practice champions influence the diffusion of BPG [best practice guideline] recommendations" (p. 240).	Roger's (2003) definition of diffusion	Mixed methods. Interviews; survey.	Phase 1: interviews with 23 champions; Phase 2: survey of champions (n=191) and administrators (n=41). Ontario, Canada.	Champions influence the use of best practice guidelines. "Findings indicate that champions are change agents who take on multi-dimensional roles, such as educator, facilitator, mentor, leader, policy developer, and evaluator to diffuse a guideline. Champions use many strategies at multiple organizational levels, attending to various stakeholder groups and tailoring their diffusion strategies to the unique organizational context" (p. 242). (1) Dissemination of information about clinical practice guidelines, specifically through education and mentoring; (2) being persuasive practice leaders at interdisciplinary committees; and (3) tailoring the guideline implementation

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					strategies to the organizational context" (p.238).
Purvis 2014[176]	To explain the main issues being faced by clinicians in providing evidence-based stroke care and determine whether stroke network facilitators (SNF) were effective in improving stroke care.	Not indicated.	Qualitative. Interviews.	N=7 hospitals. N=84 hospital staff participated in 33 focus group interviews on their perception of n=8 SNFs. Australia.	Stroke Network Facilitators were externally hired and placed in the hospitals; their role was to increase stroke awareness and education among staff, identify gaps in care across hospital and broader health service network, facilitate change in practice and processes through developing business plans and provide data on stroke care to compare between hospitals. "The SNF role was valued for identifying gaps in care and providing capacity to change clinical processes" (p.389).
Ragazzi 2011[177]	"This article describes an intervention that used problem-based learning coupled with improved systems support within an academic detailing model and presents early qualitative and quantitative findings on the intervention's effectiveness in changing practice patterns" (p. 539).	Chronic care model.	Mixed Methods: Intervention study; pre/post chart audits; post-intervention questionnaire; interviews.	Convenience sample of 6 pediatric practices in Richmond, Virginia. USA.	"Academic detailing interventions center around visits by a trained health professional who provides evidence-based information and recommendations to practitioners in their offices." The [intervention] team's purpose was to help practices implement asthma care guidelines. "The main intervention components were (1) physician and staff education in the guidelines and spirometry administration and interpretation, (2) practice systems redesign to support optimal asthma care, and (3) decision support to ensure appropriate implementation of key clinical activities" (p. S40).
Reynolds 2016[178]	To determine if a tailored multifaceted Stroke Competency Program would improve nurses' knowledge of and adherence to evidence-based practices in caring for stroke patients.	Not indicated.	Quantitative. Pre-test/post-test design.	N=88 nurses. Neurocritical care hospital unit. USA.	Implementation of educational outreach sessions by local opinion leaders who were: a clinical nurse specialist, clinical educator, stroke coordinator and expert stroke nurses. Opinion leaders created educational materials based on stroke guidelines and conducted educational outreach face-to-face sessions with each nurse on the unit. An improvement in nursing adherence was noted after the program as well as significant improvements in nursing knowledge.
Robinson 2005[179]	To describe the role of the clinical supervision facilitator for improving clinical practice.	Not indicated.	Quantitative. Questionnaire.	Staff nurses.	Clinical supervision facilitator: This role was undertaken by an existing member of the nursing team and was taken on in addition to the nurses clinical duties. The role was similar to that of a link nurse. The purpose of the facilitator was to ease implementation and ensure a sustained change in practice. The facilitator and manager worked together with the manager overseeing the implementation and the facilitator acting as an agent of change. To help ensure a collaborative approach to change a junior member of staff was appointed to the facilitating role. This person required good leadership, problem-solving, communication and decision-making skills as well as a commitment to bringing about a change in practice. These are considered essential qualities if someone is to be an effective agent of change. A guide, written by the facilitator, prepared staff to receive supervision and involved the staff in the change process therefore empowering them to be equal participants. The facilitator continued to act as a source of information regarding the process, informing staff during the process and ensuring their continuing agreement. The facilitators' role remained an integral part of the continuing process as it allowed the identification of any training needs and ongoing staff support.
Routhieaux 1999[180]	To describe best practice guidelines for utilizing	Burrows (1997) framework. Four	Descriptive paper.	Healthcare providers.	The authors present six best practice guidelines to consider when implementing a facilitator role: job expectations, structure considerations, personal characteristics, training, assessing

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	facilitators in healthcare.	components: general mutual respect, partnership in learning, dynamic goal-oriented process and critical reflection.			performance, and compensation. Facilitators as coaches: help team leaders and team members carry out the team's goals, facilitators help secure team charters, assist in establishing goals and help to define change processes and desired outcomes. The role of the facilitator is complex and requires high levels of commitment. Facilitators as cross-functional teams: serve as liaisons/coordinators between the teams and administration. Facilitators are typically co-leaders of the teams that are assigned by administration to help solve problems and provide information and direction. Facilitators need timely and extensive training; facilitation is proactive and dynamic; facilitators should be provided with specific, written instructions that outline their role and responsibilities; ensuring communication and information flow; securing support and resources for quality improvement projects; facilitators should be assigned specific areas they are responsible for; the facilitator provides guidance, assistance, and support for specified units in matters concerning quality improvement. Personal characteristics: influencing strategies, direct persuasion, conceptual thinking, analytical thinking, pattern recognition, flexibility, relationship building, team facilitation and group solving. Highly skilled in time management, to prioritize the demands on their time, skilled in listening and conflict resolution.
Ruetz 2007[181]	To implement an initiative to engage frontline staff in quality improvement.	Change management model (Carney 2002).	Quantitative. Intervention; survey.	N=10 member interdisciplinary quality team (regulated and non-regulated staff). A 210 bed long-term care facility. Ontario. Canada.	External facilitator: A skilled facilitator brings knowledge and objectivity to guide the team and keep it focused on its self-determined priorities. The model included 16 facilitated sessions on quality improvement over a four- month period. External facilitator: drive, enthusiasm and credibility; consultant, teacher, researcher, and team builder.
Rugh 2011[182]	To describe an academic detailing program involving dental students as "academic detailers."	Not indicated.	Quantitative. Pilot program implementation.	n = 38 dental students of University of Texas Health Science Center at San Antonio Dental School trained as "academic detailers" visited 143 dental practitioner offices during summer breaks of 2008 and 2009. USA.	Academic detailing involves the distribution of authoritative and unbiased information sponsored by a credible non-profit institution, such as a university or medical society. Students trained as "academic detailers" visited general dentists and presented critically appraised topic (CAT) documents in a face-to-face intervention. Up-to-date clinical information was delivered to dentists in the form of CAT documents written by students and faculty members at the school. The CAT is a structured one-page summary and critique of the best evidence available on a focused clinical question.
Russell-Babin 2010[183]	This paper describes the characteristics of opinion leaders and their roles and relationships in promoting evidence-based improvements in nursing practice, and how to identify them.	Not indicated.	Descriptive paper.	N/A	Opinion leaders provide an early evaluation and use of new knowledge. As role models of the innovation, they're informal educators, use experts to improve their practice, are masters of the art of conversation, and are strong in one-on-one communication. As social connectors, opinion leaders are conduits of information between expert sources and the nursing social network.
Rycroft-	To conduct a concept analysis	Development of the	Theoretical	Healthcare	Facilitation is a technique by which one person makes things easier for others. When it comes to

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Malone 2002a[184]	on the key elements of the PARIHS framework: evidence, context, and facilitation, leading to a refinement of the framework.	PARIHS framework.	paper. Concept analysis.	practitioners.	<p>the skills and attributes required of a facilitator, a wide repertoire of skills, processes, and strategies are needed which they can draw on depending on the particular context and purpose. The expertise is therefore having the flexibility to be able to recognise the requirements of any given situation and to adapt accordingly; it is an appointed role; appropriate facilitation of change with input from skilled external and internal facilitators ("high" facilitation). Purpose, role and skills, and attributes. "High" facilitation relates to the presence of appropriate facilitation and "low" to the absence of or inappropriate facilitation. Facilitators have a key role to play in helping individuals and teams to understand what they need to change and how they need to change it in order to apply evidence into practice. Task based facilitation and holistic facilitation. A focused process of providing help and support to achieve a specific task to a more complex holistic process of enabling teams and individuals to analyse, reflect, and change their own attitudes, behaviours, and ways of working. As the approach moves towards Holistic, facilitation is increasingly concerned with addressing the whole situation and the whole person(s). The key to "appropriate" facilitation is matching the purpose, role, and skills (each of which can exist as a series of continua) to the needs of the situation.</p> <ul style="list-style-type: none"> • The role may be internal or external (or encompass a combined internal/external approach) to the organisation in which the change is being implemented. • The role is about helping and enabling rather than telling or persuading . • The focus of facilitation can encompass a broad spectrum of purposes, ranging from the provision of help to achieve a specific task to using methods which enable individuals and teams to review their attitudes, habits, skills, ways of thinking, and working. • Given the broad focus of the facilitation concept, a wide range of facilitator roles is possible with corresponding skills and attributes needed to fulfil the role effectively
Rycroft-Malone 2002b[185]	This aim of this paper is to outline the influencing factors that the authors believe are key to successful implementation.	Development of the PARIHS framework.	Theoretical paper.	Healthcare practitioners.	<p>Facilitation: "characterised by purpose, role, skills, attributes. "A technique by which one person makes things easier for others." Facilitation is achieved by an individual carrying out the specific role of the facilitator and aiming to help others (p.3). It is proposed that a facilitator has a key role in not only affecting the context in which change is taking place, but also is working with practitioners to make sense of the evidence being implemented. Facilitators might be required to fulfil very specific roles: e.g., taking on particular tasks for individuals or teams, such as organizing resources and education sessions (task based facilitation), to adopting more complex, holistic processes to enable individuals or teams to analyse, reflect and change their own attitudes, behaviours and ways of working (holistic facilitation).</p> <p>Generally a mixture of personal attributes and personal, interpersonal and group management skills contribute to the development of effective facilitation. Facilitation might be internal or external or on an internal-external basis. Facilitator skills: flexibility, commitment, persistence, intensity of presence, negotiation skills, project management skills, facilitation skills, persuasion, credibility, sincerity, good leaders, clear vision, speaks a common language. Appropriate facilitation is holistic, enabling others.</p> <p>...a facilitator has a key role in not only affecting the context in which change is taking place, but also is working with practitioners to make sense of the evidence being implemented.</p> <p>...strategies thought to be effective in terms of promoting individual an organisational change that include a mixture of change agent roles and change management techniques, such as academic detailing, educational outreach visits, audit, feedback, social influence and marketing approaches</p> <p>...most effective strategies are those that adopt multifaceted approaches</p>
Rycroft-	The aims of the study were to	Development of the	Qualitative.	N=12 practice	Facilitators, champions and change agents need to have drive, enthusiasm and credibility rather

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Malone 2004a[186]	address the following: What are the factors practitioners identify that mediate the implementation of evidence into practice? What factors do practitioners identify as the most important in enabling implementation of evidence into practice? Do the concepts of evidence, context and facilitation constitute the key elements of a framework for getting evidence into practice?	PARIHS framework.	Case study; interviews; focus groups.	development nurses (focus groups). N=17 interviews. Site 1 is a specialist cardio-thoracic hospital including a large transplant centre. Site 2 is an orthopaedic unit in a 340 bed hospital. UK.	than superiority. Someone who primarily provided the energy and motivation to initiate and run the projects, and taking on the day-to-day tasks required to achieve goals. Facilitators have the potential to work with individuals and teams to articulate these issues, and enable the development and implementation of strategies that acknowledge and incorporate these factors. Collaborative improvement lead (CIL) need to have - knowledge of the collaborative project, status (the person leading the project did not necessarily have to have a lot of experience, but a certain level in the hierarchy is necessary), manager (this person was needed to be able to manage others and co-ordinate the project), positive, enthusiastic approach and good communication skills.
Rycroft-Malone 2004b[187]	This paper describes the PARIHS framework- a framework for guiding the implementation of evidence-based practice.	Development of the PARIHS framework.	Theoretical paper.	Healthcare practitioners.	Facilitators are individuals with the appropriate roles, skills, and knowledge to help individuals, teams, and organizations apply evidence into practice. Facilitators require a wide repertoire of skills and attributes; they adjust their role and style at the different phases of an implementation or development project. Facilitator role: ranges from a practical hands on role of assisting change to a more complex multifaceted role. In the models of health promotion that explicitly employ a facilitator, the emphasis is on external facilitators using an outreach model to work with several primary care practices, providing advice, networking and support to help them establish health prevention activities.
Rycroft-Malone 2012[188]	To evaluate the effectiveness of three interventions to implement fasting recommendations into practice with a focus on summative outcomes (duration of fasting) and the processes of implementation (intervention delivery, influences, and other types of impacts).	PARIHS (Promoting Action on Research Implementation in Health Services) framework	Quantitative. A pragmatic cluster randomised controlled trial using time series with embedded mixed methods process and economic evaluation.	n = 19 acute NHS hospitals participated; interdisciplinary	The trial had three arms: standard dissemination (SD) of a guideline package; SD plus a web-based education package championed by an opinion leader, and 3) SD plus a Plan-Do-Study-Act (PDSA) approach. Opinion leaders and PDSA facilitators within two intervention arms had the potential to take on facilitation roles ('making things easier'). The enactment of these roles varied and linked to activities rather than the model of facilitation/change agency of the intervention.
Rycroft-Malone 2013[189]	To describe a process evaluation in which PARIHS was embedded; the main aims of the process evaluation were to determine how the implementation interventions were received within sites, whether any impacts were observed locally, and how	PARIHS (Promoting Action on Research Implementation in Health Services) framework.	Qualitative. Interviews; focus groups.	Three trial interventions were developed and randomly allocated to 19 participating hospitals in England, Scotland, Wales, and Northern Ireland: standard dissemination, a web-based resource championed by an	The purpose of facilitation was to enable implementation through the web resource + opinion leader, and PDSA interventions. At each site there was also a key contact who facilitated the running of the project at a local level. Nurses and anaesthetists took on these roles, and in some sites this included both nurses and anaesthetists. The enactment of these roles varied and was linked to activities rather than the prescribed intervention strategy. In interviews, opinion leaders and PDSA facilitators reported engaging in many activities including: amendment of information; dissemination of information; awareness raising; individual review of patient fast; educational meetings; policy development; promotion of guidance; teaching/training (formal and informal); and using role models of good practice.

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	implementation processes played out.			opinion leader(s), and a Plan-Do-Study-Act (PDSA) intervention; interdisciplinary.	
Sacco 2016[190]	To evaluate the effectiveness of implementing a pain and sedation guideline in the intensive care unit via unit champions.	Not indicated.	Quantitative. Pre-post study.	Initial lead facilitators n=3; unit champions were nurses, clinical nurse specialists, nurse practitioners, physician assistants and pharmacists. Hospital trauma intensive care unit. USA.	Development, implementation and evaluation of the guideline. Team of unit champions' roles were to develop guideline implementation on unit via educational sessions to other unit staff and collecting outcome data. These unit champions attended an initial meeting with lead facilitators who introduced guidelines and addressed questions, concerns, and feedback from unit champions. Unit champions facilitated guideline implementation in the unit via online modules, live presentations and answered any questions from unit staff. The development of the nurse-driven guideline was noted to be both feasible and successful. The success of the guideline was augmented with the use of unit champions during implementation.
Schleifer Taylor 2014[191]	To conduct a systematic review on the use of knowledge brokers (KB) within pediatric rehabilitation, and (1) describe knowledge brokers role and (2) whether KB improve performance of healthcare providers or organization.	N/A	Systematic review.	From 1513 articles retrieved, n=4 were included (2 mixed methods, 1 qualitative, 1 case presentation).	KBs roles included adapting content to audience, assessing barriers/supports, implementing interventions, monitoring use and outcomes, supporting healthcare staff in applying evidence to their practice, and identifying knowledge or skill gaps. Training needs of KBs may vary by setting.
Shifaza 2013[192]	To describe the process in preparing evidence based practice (EBP) champions and their roles in implementing EBP based on an action research project.	Action research framework[193]	Descriptive paper.	Action research project comprised of n=24 clinicians (nurses and ward managers) as EBP champions. Maldives.	Change champions are skilled at initiating, facilitating and implementing change and are considered influential, trustworthy, passionate about their work and respected. Roles of EBP champions are acting as mentor, influential leader, being a resource person and works with interdisciplinary teams or organizations to implement EBP. EBP champions participated in a two day training workshop to enhance their competencies for EBP process, knowledge, skills and attitudes. An action research researcher facilitated the workshops. "This project has facilitated to build a network of clinicians who were able to assist their colleagues to apply the principles and tools associated with implementing EBP (p.600).
Shipman 2003[194]	To evaluate the impact of the Macmillan general practitioners (GPs) Facilitator Programme in palliative care on the knowledge, attitudes and confidence in symptom control of GPs, communication with patients and out-of-hours practice.	Not indicated.	Mixed methods. Before and after trial; summative and formative evaluation. questionnaires	N=63 GPs were interviewed, randomly selected from Health Authority lists. N=23 GPs two years later. N=640 GPs completed the questionnaire in Phase 1. N=655 completed the	GP Facilitators worked on average for two sessions a week with practices in their locality. Practice facilitators have described successful aspects of their role, which combines educational outreach through practice visits assessing local needs, whether these may be educational, improved communication with specialist services or involvement in palliative care strategy. The role is appointed; The Facilitators were in post for three years; colleagues worked as facilitators.

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			; interviews.	questionnaire in Phase 2. N=43 district nurses (DNs) and N=13 key stakeholders (including hospice and health authority representatives), were interviewed.	
Shirey 2006[195]	To discuss the nurse leader's role in facilitating evidence-based nursing practice (EBNP) in nursing using a theoretical framework grounded in innovation diffusion theory.	Rogers Innovation Diffusion theory.	Descriptive paper.	Nurses.	To facilitate EBNP adoption, the change agent, knowledge brokers, CNO opinion leaders, CNO champions and implementation facilitators would benefit from incorporating into their work the 5 stages in the innovation-decision process. Facilitating innovation; nurse leaders as either change agents, opinion leaders, or champions for EBNP. Change agent: point out the existence of desirable new ideas and to enhance the knowledge base about new ideas. Facilitate the adoption and implementation of EBNP; encouraging innovation adoption. The need for continued use of interpersonal channels with ongoing support and service excellence by the change agent is critical; assist in building the infrastructures necessary to facilitate success of the innovation facilitators (advanced practice nurses).
Shortell 2004[196]	To examine both the correlates of self-assessed or perceived team effectiveness and its consequences for actually making changes to improve care for people with chronic illness.	Chronic Care Model (Wagner et al. 1996).	Quantitative. Questionnaire.	Nurses and physicians. N=40 teams participating in the national evaluation of the improving chronic illness care program. USA.	Team champion. Measured whether or not any member of the team reported that a nurse or physician acted as a specific facilitator of change in the improvement process. Champions provide motivation, encouragement, and work to acquire the resources and support needed for the team to succeed.
Siddiqi 2005[197]	To summarize the available literature on the effectiveness of interventions designed to change professional behavior in order to bring evidence into practice in developing countries.	Not indicated.	Literature review.	Healthcare providers. N=44 studies met pre-defined selection criteria.	Local opinion leaders are health professionals nominated by their colleagues as "educationally influential" and are likely to influence their colleagues' professional behavior.
Siegel 2003[198]	To implement a program using academic detailers to increase practitioner compliance with national	Not indicated.	Quantitative. Intervention study.	N=5 pharmacists were trained as academic detailers. Healthcare providers.	Academic detailing: involves face-to-face meetings of providers with typically a pharmacist or other healthcare provider. The intervention included lectures, educational materials, provider profiling, and meetings with 25 to 50 providers each. Five pharmacists were trained as academic detailers. One pharmacist was assigned to each VA

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	hypertensive medication guidelines.			Five Veterans Affairs medical facilities (including academic medical centers and community based outpatient clinics). USA.	facility. Training was 4 hours and included effective communication techniques, discussion of national recommendations and use of computer programs to extract and to format data. Academic detailers met every 2 to 4 weeks to discuss effective interventions and to share information.
Simpson 2007[199]	To determine the optimal combination of practice change interventions needed to overcome barriers to practice change commonly encountered in the intensive care unit (ICU).	Not indicated.	Quantitative. Survey.	N=14 individuals with experience implementing evidence-based guidelines (EBG); physicians and nurses. N=14 hospitals: adult medical and surgical intensive care. Australia and New Zealand.	Academic detailing; opinion leaders. Site investigators and/or educationally influential opinion leaders conducted one-on-one conversations with any staff member or clinician not compliant with the EBG in order to address their individual concerns and persuade them to change behavior through the provision of information or evidence. Peer nominated educationally influential opinion leaders - intensive care unit nurses, consultants and surgeons who admitted patients to the study ICUs were surveyed to identify educationally influential opinion leaders from each respective discipline using a valid instrument.
Sipilä 2008[200]	This paper describes a two-year programme in primary care, where doctor and nurse pairs acted as intrinsic facilitators creating and implementing local guidelines and encouraging multi-professional teamwork.	Not indicated.	Quantitative. Program implementation.	Two volunteer facilitators, one doctor and one nurse, were recruited from each health station. At the end of 2001 there were N=62 facilitators. In Helsinki, primary care is divided by geographical boundaries into 7 health care districts (health centers). N=31 health stations in total with N=292 GPs, N=560 nurses, N=6 dieticians, and N=100 physiotherapists. Finland.	Inter-professional facilitation. The doctor and nurse pair attended to the educational process, worked together and acted in a peer group of facilitators. In the programme, they took part in the guideline and audit processes. The facilitator pair encouraged co-workers towards new working methods, managed the local implementation of national guidelines and supported the development of the proper division of tasks in the care of lifestyle diseases. Process: (1) Educational process: Facilitator pairs were provided with an educational programme. (2) Audit and feedback: hypertension audit results were fed back to the facilitators. (3) Implementing local guidelines.
Soumerai 1998[201]	To discuss the principles of academic detailing or, educational outreach, in primary care and review the evidence of its effectiveness in and potential for improving	Not indicated.	Systematic review.	Physicians. Mental healthcare.	Academic detailing: brief, face-to-face education intended to improve physicians' clinical decisions.

Supplementary file 1. Characteristics of included studies

First author/ year	Purpose	Theoretical framework	Study Design/ Method	Sample/ Setting	Description of facilitation role/characteristics/process and/or intervention
	mental healthcare.				
Stenger 2001[202]	To describe how evidence-based practice for pain management (EBPM) can be implemented in practice for managing pain in the critically ill.	Not indicated.	Descriptive paper.	Healthcare providers.	Opinion leaders and change agents need to be available to continually champion EBPM and prompts to ask about pain should be provided to practitioners and patients. Permanent change requires direction from the change agent through the process of unfreezing, changing and refreezing. The opinion leader is someone who can influence or sway involvement in the change process by virtue of being respected in high esteem because of professional accomplishments or knowledge.
Stetler 2006[203]	To describe a systematic, retrospective evaluation of implementation-related facilitation experiences within QUERI, a quality improvement program developed by the US Department of Veterans Affairs (VA).	PARIHS Framework; Kolb's experiential four-phase learning cycle.	Qualitative. Interviews.	N=7 VA researchers from six QUERI related VA implementation projects. USA.	Facilitator: (change agent role) - have a key role in helping individuals and teams understand what they need to change and how to change it to successfully implement evidence into practice (Parihs definition). Facilitation: can be identified as a potential intervention that enables the implementation of evidence into practice. Facilitators need to have - flexibility, relevant experience, knowledge, the ability to build relationships through good communication; facilitators need to have credibility and be appropriately "trained and supported to develop interpersonal relationships with potential users. Facilitation is a valuable and critical process of interactive problem-solving and support, which occurs in the context of a recognized need for improvement and a supportive interpersonal relationship. The recognized need is one derived through research of best practice and diagnostic analysis of a site's performance gaps. The purpose of facilitation can thus vary, ranging from "providing help and support to achieve a specific goal" to "enabling individuals and teams to analyze, reflect and change their own attitudes, behaviours and ways of working (Parihs); appointed role; internal/external facilitation or a combination thereof. Use of an external facilitator, evident in QUERI, working across multiple and variable implementation sites (units and/or facilities) from a central location within a healthcare system. External facilitators supported the exchange of information through multiple communication channels. Facilitation as a distinct activity or intervention; the external facilitator worked with "emergent groups" or "different individuals for different interventions," as each required a particular skill or role. The end goal of facilitation as helping people in healthcare settings modify their work to incorporate a specific evidence-based clinical practice. Objectives of external facilitation: to help internal change agents at implementation sites understand what needs to change and how change can occur; To provide support to internal change agent/s in the form of encouragement. Facilitators will likely use or integrate other implementation interventions while performing this problem-solving/supportive function. Facilitation is more general than other change roles – more flexible. Facilitation is more two-way.
Stetler 2011[204]	To describe a Guide developed to enhance and optimize efforts of researchers using the PARIHS framework in implementation trials and evaluations.	PARIHS (Promoting Action on Research Implementation in Health Services) framework.	Qualitative. Literature synthesis and recommendations (Guide).	N/A	For facilitation, implementation interventions beyond that of a facilitator role were inserted. The addition of "other implementation interventions" to the Facilitation element draws, in part, from a QUERI evaluation on facilitation wherein data suggested the following: "external facilitators were likely to use or integrate other implementation interventions, while performing this problem-solving and supportive role." Facilitator skills and attributes: project management skills, technical skills, marketing skills, subject/technical/clinical credibility.
Sullivan 2005[205]	To describe a clinical partnership program, the	Not indicated.	Mixed methods.	Clinicians, administrators, and	Facilitators: The role is broad varying from each project. Their job is to ensure the integrity of the design and the evaluation components of the project. Assist with the selection of assessment

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	goals of which are to: harvest intervention ideas from frontline clinicians, to see these interventions realized and evaluated with assistance from services researchers, and to gain and retain support of the mental health leadership for this process.		Four pilot projects with four different interventions; surveys; interviews.	facilitators. The South Central Veterans Health Administration (VHA) network. Within this network, 10 VHA medical centers and 30 freestanding clinics offer mental health care, provided by more than 1,000 specialty mental health clinicians. USA.	instruments and approaches to collect assessment data for both intervention and comparison groups. Each of the four projects has been assigned a facilitator who will have regular contact with the clinicians and will work directly with frontline providers. Facilitators were selected partly on the basis of their interpersonal skills, ability to convey information effectively, and interest in participatory research. We hired approx 1.5 full-time equivalents of facilitators - individuals who were experienced in research methods and evaluation techniques.
Taylor 2013[206]	To describe the roles of practice facilitators and care managers in redesigning and improving healthcare delivery.	Not indicated.	Descriptive paper.	Primary care practices.	Practice facilitators are typically external to a primary care practice and their role includes helping the practice sites to organize, prioritize and implement quality improvement (QI) activities, train staff to understand and use data to drive QI, help build team orientation and create culture receptive to change, and share best practice and lessons learned across practices.
Thompson 2006[207]	To examine the concepts of opinion leaders, facilitators, champions, linking agents and change agents as described in health, education and management literature in order to determine the conceptual underpinnings of each.	Not indicated.	Literature review.	Healthcare. 1990-2003 literature review from Medline, CINAHL, Proquest and ERIC.	Opinion leaders: Their primary methods of exerting influence are word-of-mouth and face-to-face communication. They are generally respected authoritative sources of information for a group and are considered knowledgeable, trustworthy, accessible and approachable and are willing to share their knowledge. They are context specific and their range of influence does not extend beyond their unit, program or medical specialty. Facilitator: support a goal-oriented process; They are active, and dynamic concerned with helping, enabling and developing a learning process rather than persuading and telling the group what they should do. Facilitators must have strong interpersonal, group and communication skills in order to create supportive environments. appointed and trained for their role; formal role; can be internal or external; role cuts across disciplinary boundaries; Champions: They are actively involved in all stages of the innovation process and may use different skill sets during each of the stages. They are distinguished by their overwhelming enthusiasm and visionary qualities. Linking Agents: It is ultimately the linking agent who spans this boundary to bring closer collaboration between the two systems. Change Agent: requires strong interpersonal communication skills, they must earn trust and respect and be seen by their clients as 'expert'.
Tjia 2015[208]	To evaluate the effectiveness of translating and disseminating evidence-based guidelines about atypical antipsychotic use to nursing homes (NHs).	RE-AIM framework[209]	Quantitative. Three-arm, cluster randomized trial.	The toolkit targeted internal stakeholders within the NH setting: facility leadership, prescribers, and direct care staff (registered nurses (RNs), licensed practical nurses (LPNs), and certified nurse assistants). N=42 nursing homes.	Nursing homes were recruited and randomized to one of three toolkit dissemination strategies: (1) mailed toolkit delivery (minimal intensity); (2) mailed toolkit delivery with quarterly audit and feedback reports about facility-level antipsychotic prescribing (moderate intensity); and (3) in-person toolkit delivery with academic detailing, on-site behavioral management training, and quarterly audit and feedback reports (high intensity). Academic detailing team included a nurse educator and a pharmacist responsible for implementing the intervention. Educational intervention was an in-person behaviour management training program targeting nurses on antipsychotic use in NHs, and was paired with academic detailing visits involving one-on-one feedback with prescribers. NHs reflected adoption and implementation of the intervention. Highest levels of use and knowledge among direct care staff were reported in high-intensity NHs

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				USA.	(p. 1289).
van der Zijpp 2016[210]	To describe the interaction between managerial leaders and internal facilitators and how this enabled or hindered the facilitation process of implementing urinary incontinence guideline recommendations.	PARIHS framework.	Qualitative. Interviews.	n=105 managers and n=22 internal facilitators (clinical leaders) in long-term care. England, Ireland, Netherlands, Sweden.	Internal facilitators can enable implementation and adherence to the guidelines by “realising/securing commitment, negotiating conditions and encouragement to keep momentum going.” (pg. 27) “The findings revealed that the continuous reciprocal relationships between internal facilitators and managerial leaders influenced the progress of implementation, and could slow the process down or disrupt it.” (p. 25).
Varnell 2008[211]	To evaluate the effectiveness of an accelerated educational program on the attitudes toward and implementation of evidenced-based practice (EBP) among nurses employed in acute care facilities.	Transtheoretical model of organisational change, Stage 1- 5.	Quantitative. Quasi-experimental design. Pre-post survey.	N=49 nurses (e.g., staff nurse, charge nurse, director). N= 5 acute-care facilities.	Evidence-based practice champion: to help facilitate change within the organization. An 8-week program to develop nurses into EBP champions. Participants attended a 2-hour class each week conducted by four faculty members of a local university. Each facility determined how many EBP champions they would support. The curriculum included content on: history of EBP; asking clinical questions; conducting literature searches; research designs; evaluating qualitative and quantitative research; implementing EBP change; and evaluating change in practice. Mentors and “champions” can play a key role in implementing EBP because nurses in the clinical arena are in the best position to question nursing practice. The researchers asked nurse administrators to select nurses to participate in the educational series who could be potential EBP champions. The involvement and commitment shown by the invited nurse champions indicated a belief that change to an EBP model could succeed.
Vaughan 2010[212]	To evaluate the approach used to train facilitators for a large-scale group-based diabetes prevention program developed from a rural implementation research project.	Not indicated.	Quantitative. Pre and post training questionnaires.	N=224 health professionals attended the Life! training orientation days. N=156 health professionals completed the pre- and post-training questionnaires. Australia.	Facilitator training program. Facilitators were nurses, few in number and working closely with the researchers. The Life facilitator training program consisted of three parts: (i) an orientation day; (ii) a self-learning period; and (iii) a two-day workshop. Pre- and post-training questionnaires included a 17-item scale related to knowledge of diabetes prevention program facilitation and a 16-item scale related to confidence in group-based diabetes prevention program facilitation. Facilitation methods that use group processes and promote adult learning were modelled for the trainees for use in their own programs.
Wadhwa 2005[213]	To explore interphysician telephone consultation, a situation in medical practice in which we see opinion leaders at work, and to generate a grounded theory of opinion leader activity.	Not indicated.	Qualitative. Grounded theory.	N=129 telephone consultations (received from community pediatricians and family physicians working in a variety of practice settings). N=24 interviews (12	Three key features of opinion leaders: a trusted source of clinical knowledge, likes to teach and humanistic interpersonal skills. Key to effective opinion leader activity is an informal practitioner-initiated context. Key activities performed by the consultants included seeking relevant information from a vast body of knowledge, blending it with personal experience, and then packaging an answer for the callers that is educational and delivered in a collegial manner.

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				callers and 12 consultants). Pediatric infectious disease services at a quaternary care pediatric hospital.	
Wallin 2005[214]	To investigate staff experiences in implementing guidelines for Kangaroo Mother Care (KMC) in neonatal care. This study is part of an RCT- the overall goal of which was to assess the impact of external facilitation.	PARIHS framework.	Qualitative. Focus groups.	Focus groups conducted with change teams: nurses, physician/psychologist. N=2 to 8 individuals per focus group. Four neonatal units at four county hospitals. Sweden.	Facilitators: are individuals with the appropriate roles, skills and knowledge to help individuals, teams and organizations apply evidence into practice" (Harvey et al. 2002). The RCT consisted of the change teams having one meeting every month with an external facilitator and some email communication in between meetings. External facilitator as the intervention. The facilitator used a group focused, democratic, and enabling approach to facilitation, supporting the change of clinical practice. Critical thinking, sharing ideas, and focusing on change were central ingredients of the facilitation, employing an eclectic approach to support the change teams. As a concrete programme, the facilitation involved elements such as identification and appraisal of evidence on the KMC.
Waters 2009[215]	To examine the contribution opinion leaders might make towards formulating nurses' and midwives attitudes towards evidence based practice (EBP).	Not indicated.	Qualitative. Phenomenography approach; interviews.	N=23 nursing and midwifery opinion leaders in management or clinical roles. Metropolitan and rural areas of Australia.	Local nursing and midwifery opinion leaders were selected to investigate perceptions of 'evidence' in regard to the preparation of undergraduate nurses and midwives in the state of New South Wales (NSW), Australia. The opinion leader relays an understanding of evidence that is greater than the sum of professional or clinical parts and which focuses on the possibilities for EBP to increase effectiveness and efficiency in healthcare and thereby improve patient outcomes. Opinion leaders' reference or meaning is defined by their professional background or actual experience of applying evidence in nursing or midwifery practice. Wide variation in how opinion leaders understand evidence for EBP. Their knowledge of local conditions and their credibility and status within a profession or community may contribute to the sanctioning of new ideas. In this way, opinion leaders can act as EBP champions by facilitating appropriate organizational and educational strategies, translating evidence for policy and practice, and modelling specific behaviours.
Wilkinson 2011[216]	To explore and explain the evidence-based practice implementation (EBPI) role of nurse managers working in acute healthcare settings in Scottish Health Boards.	Pettigrew's contextual framework (1985, 1987).	Qualitative. Case study; documentary analysis, interviews, observations.	n = 4 Scottish Health Boards, (geographical administrative units of the publicly funded National Health Service) which varied in size and urban or rural context, were purposively selected as case study sites to reflect these differences. Scotland, UK.	The potential linking roles (of nurse managers) identified were: sharing and disseminating information for EBPI; helping to integrate various EBP initiatives; and linking appropriate people to EBPI posts. NMs played more of a role in linking staff to EBPI posts. While most NMs thought that the direct responsibility for EBPI lay with individual nurses and charge nurses, they did consider that they played a role in empowering, facilitating, and providing autonomy for nurses to engage with EBPI. NMs' facilitative, enabling or empowering actions were not clear to other managers or to charge nurses, with neither being able to explain or provide examples of the ways in which these played out. Although NMs all acknowledged the importance of EBP, they were not personally well-equipped to facilitate it.
Wiechula 2009[217]	To develop and implement a structured intervention known as the Knowledge Translation (KT) toolkit to	Not indicated.	Quantitative. Intervention study.	N=14 individuals who volunteered to lead and deputy leads (health care professionals).	The intervention comprised three elements: the facilitation team recruited for specific knowledge, skills and expertise in KT, evidence-based practice and quality and safety; the facilitation, including a structured program of education, ongoing support and communication; and finally the components of the toolkit including elements already used within the study

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	improve the fundamentals of care for the older person in the acute care sector.			Large tertiary acute care hospital. Australia.	organisation. The intervention was known as the KT Toolkit. The intervention comprised three main elements: the facilitators who provided the toolkit to the project teams, the facilitation or delivery of the toolkit comprising education, ongoing support and communication, and the content of the toolkit comprising a variety of tools, techniques and strategies. The intervention (the KT Toolkit) and second the support the teams received for their activities were constructed and delivered in a very structured way. At the commencement of the study the Chief Investigator assembled the coordinating team. The members of the team were each invited to become a team member and they were supported and facilitated by the Chief Investigator. Each volunteer was experienced in various aspects of practice improvement although their skills represented the different perspectives that comprise the spectrum of practice change traditions. The coordinating team provided education workshops, complemented with action learning sets. Ongoing support was provided by the coordinating team who attended local TOPIC7 team meetings, individual meetings with leads and deputy leads, email and telephone support. A key feature of the facilitation was to bring the leads and deputies together on a regular basis.
Wright 2013[218]	To describe experiences of nurses and allied health professionals as first-time knowledge brokers (KBs), attempting to bridge research-practice gap within healthcare.	Not indicated.	Qualitative. Interviews.	n=17 knowledge brokers (nurses and allied health professionals: dietetics, occupational therapists, orthoptics, physiotherapists) and n=5 individuals supporting the KBs. Clinical settings within NHS organizations. UK.	KB role included seeking expertise on a specific topic and then being an expert to disseminate knowledge. KB skills included ability to reflect on their own and others' practice, building networks, influencing others, and good communication.
Young 2003[219]	To investigate the concept of opinion leaders in surgery, specifically to determine surgeons' own views of opinion leadership and those attributes that confer status as an opinion leader.	Diffusion of innovations (Rogers); Social influence research.	Quantitative. Survey.	N=418 fellows of the Royal Australasian College of Surgeons in New South Wales. 35% were from a tertiary referral teaching hospital. Australia.	Clinical opinion leaders: health professionals who are nominated by their colleagues as being 'educationally influential.' Clinical opinion leaders in surgery: are clinicians who have an influence on the education and surgical practices of their colleagues. Participants were asked to estimate the number of opinion leaders in their specialty in the context of their hospital.

References

1. Aagaard EM, Gonzales R, Camargo Jr CA, et al. Physician champions are key to improving antibiotic prescribing quality. *Jt Comm J Qual Patient Saf* 2010;36(3):109-16.
2. Åberg AC, Lundin-Olsson L, Rosendahl E. Implementation of evidence-based prevention of falls in rehabilitation units: a staff's interactive approach. *J Rehabil Med* 2009;41(13):1034-40.
3. Acolet D, Allen E, Houston R, et al. Improvement in neonatal intensive care unit care: a cluster randomised controlled trial of active dissemination of information. *Arch Dis Child Fetal Neonatal Ed* 2011;96(6):F434-9.
4. Aitken LM, Hackwood B, Crouch S, et al. Creating an environment to implement and sustain evidence based practice: a developmental process. *Aust Crit Care* 2011;24(4):244-54.
5. Alkema GE, Frey D. Implications of translating research into practice: a medication management intervention. *Home Health Care Serv Q* 2006;24(1-2):33-54.
6. Alleyne J, Jumaa MO. Building the capacity for evidence-based clinical nursing leadership: The role of executive co-coaching and group clinical supervision for quality patient services. *J Nurs Manag* 2007;15(2):230-43.
7. Hall DT, Otazo KL, Hollenbeck GP. Behind closed doors: what really happens in executive coaching. *Organizational Dynamics* 1999;27(3):39-52.
8. Ang E, Chow YL. General pain assessment among patients with cancer in an acute care setting: a best practice implementation project. *Int J Evid Based Healthc* 2010;8(2):90-6.
9. Ansari M, Shlipak MG, Heidenreich PA, et al. Improving guideline adherence: a randomized trial evaluating strategies to increase beta-blocker use in heart failure. *Circulation* 2003;107(22):2799-804.
10. Armson H, Kinzie S, Hawes D, et al. Translating learning into practice: lessons from the practice-based small group learning program. *Can Fam Physician* 2007;53(9):1477-85.

11. Armstrong R, Waters E, Crockett B, et al. The nature of evidence resources and knowledge translation for health promotion practitioners. *Health Promot Int* 2007;22(3):254-60.
12. Ayieko P, Ntoburi S, Wagai J, et al. A multifaceted intervention to implement guidelines and improve admission paediatric care in Kenyan district hospitals: a cluster randomised trial. *PLoS Med* 2011;8(4):e1001018.
13. Bashir K, Blizard B, Bosanquet A, et al. The evaluation of a mental health facilitator in general practice: effects on recognition, management, and outcome of mental illness. *Br J Gen Pract* 2000;50(457):626-9.
14. Baskerville NB, Liddy C, Hogg W. Systematic review and meta-analysis of practice facilitation within primary care settings. *Ann Fam Med* 2012;10(1):63-74.
15. Bayley MT, Hurdowar A, Richards CL, et al. Barriers to implementation of stroke rehabilitation evidence: findings from a multi-site pilot project. *Disabil Rehabil* 2012;34(19):1633-8.
16. Begley CM. Developing inter-professional learning: tactics, teamwork and talk. *Nurse Educ. Today* 2009;29(3):276-83.
17. Belizan M, Meier A, Althabe F, et al. Facilitators and barriers to adoption of evidence-based perinatal care in Latin American hospitals: a qualitative study. *Health Educ Res* 2007;22(6):839-53.
18. Bender BG, Dickinson P, Rankin A, et al. The Colorado Asthma Toolkit Program: a practice coaching intervention from the High Plains Research Network. *J Am Board Fam Med* 2011;24(3):240-8.
19. Bloomfield HE, Nelson DB, Van Ryn M, et al. A trial of education, prompts, and opinion leaders to improve prescription of lipid modifying therapy by primary care physicians for patients with ischemic heart disease. *Qual Saf Health Care* 2005;14(4):258-63.
20. Boaz A, Baeza J, Fraser A, et al. Effective implementation of research into practice: an overview of systematic reviews of the health literature. *BMC Res Notes* 2011;4:212.
21. Grimshaw JM, Shirran L, Thomas R, et al. Changing provider behavior- An overview of systematic reviews of interventions. *Medical Care* 2001;39:II2-II45.

22. Borbas C, Morris N, McLaughlin B, et al. The role of clinical opinion leaders in guideline implementation and quality improvement. *Chest* 2000;118(S2):24S-32S.
23. Bornbaum CC, Kornas K, Peirson L, et al. Exploring the function and effectiveness of knowledge brokers as facilitators of knowledge translation in health-related settings: a systematic review and thematic analysis. *Implementation Science* 2015;10(1):162.
24. Branowicki PA, Shermont H, Rogers J, et al. Improving systems related to clinical practice: an interdisciplinary team approach. *Semin Nurse Manag* 2001;9(2):110-4.
25. Buonocore D. Leadership in action: creating a change in practice. *AACN Clin Issues* 2004;15(2):170-81.
26. Byng R, Jones R, Leese M, et al. Exploratory cluster randomised controlled trial of shared care development for long-term mental illness. *Br J Gen Pract* 2004;54(501):259-66.
27. Byron S, Moriarty D, O'Hara A. Macmillan nurse facilitators: establishing a palliative resource nurse network in primary care. *Int J Palliat Nurs* 2007;13(9):438-44.
28. Caine C, Kenrick M. The role of clinical directorate managers in facilitating evidence-based practice: a report of an exploratory study. *J Nurs Manag* 1997;5(3):157-65.
29. Campbell J. The effect of nurse champions on compliance with keystone intensive care unit sepsis-screening protocol. *Crit Care Nurs Q* 2008;31(3):251-69.
30. Catallo C. Should Nurses Be Knowledge Brokers? Competencies and Organizational Resources to Support the Role. *Nurs Leadersh (Tor Ont)* 2015;28(1):24-37.
31. Chan D, Patel P, Booth L, et al. A novel approach for implementing evidence-based guidelines in the community: the appropriate choices in dyspepsia project. *Journal of Clinical Excellence* 2001;2(4):219-23.
32. Cheek J, Gilbert A, Ballantyne A, et al. Factors influencing the implementation of quality use of medicines in residential aged care. *Drugs Aging* 2004;21(12):813-24.

33. Christl B, Lloyd J, Krastev Y, et al. Preventing vascular disease - effective strategies for implementing guidelines in general practice. *Aust Fam Physician* 2011;40(10):825-8.
34. Chummun H, Tiran D. Increasing research evidence in practice: a possible role for the consultant nurse. *J Nurs Manag* 2008;16(3):327-33.
35. Clarkson JE, Bonetti D. Why be an evidence-based dentistry champion? *J Evid Based Dent Pract* 2009;9(3):145-50.
36. Crites GE, McDonald SD, Markert RJ. Teaching EBM facilitation using small groups. *Med Teach* 2002;24(4):442-4.
37. Cronje RJ, Moch SD. Part III. Reenvisioning undergraduate nursing students as opinion leaders to diffuse evidence-based practice in clinical settings. *J Prof Nurs* 2010;26(1):23-8.
38. Damschroder LJ, Banaszak-Holl J, Kowalski CP, et al. The role of the champion in infection prevention: results from a multisite qualitative study. *Quality & Safety in Health Care* 2009;18(6):434-40.
39. Davis DA, TaylorVaisey A. Translating guidelines into practice: a systematic review of theoretic concepts, practical experience and research evidence in the adoption of clinical practice guidelines. *CMAJ* 1997;157(4):408-16.
40. Davis P, Kvern B, Donen N, et al. Evaluation of a problem-based learning workshop using pre- and post-test objective structured clinical examinations and standardized patients. *Journal of Continuing Education in the Health Professions* 2000;20(3):164-70.
41. DeBourgh GA. Champions for evidence-based practice: a critical role for advanced practice nurses. *AACN Clin Issues* 2001;12(4):491-508.
42. de Cordova PB, Collins S, Peppard L, et al. Implementing evidence-based nursing with student nurses and clinicians: uniting the strengths. *Appl. Nurs. Res.* 2008;21(4):242-5.
43. Straus SE, Richardson WS, Glasziou P, et al. *Evidence-based medicine: How to practice and teach EBM*. London: Churchill Livingstone 2005.

44. De Luca A, Caprara A, Barbolini M, et al. Continuing medical education and evidence-based clinical pathways. Training emergency health workers in Latium, Italy. *Educ Health (Abingdon)* 2008;21(1):119.
45. Dickinson WP, Dickinson LM, Nutting PA, et al. Practice Facilitation to Improve Diabetes Care in Primary Care: A Report From the EPIC Randomized Clinical Trial. *The Annals of Family Medicine* 2014;12(1):8-16.
46. Stroebe CK, McDaniel RR, Crabtree BF, et al. How Complexity Science Can Inform a Reflective Process for Improvement in Primary Care Practices. *Joint Commission Journal on Quality and Patient Safety* 2005;31(8):438-46.
47. Berwick DM. Continuous Improvement as an Ideal in Health Care. *New England Journal of Medicine* 1989;320(1):53-56.
48. Dilworth K, Tao M, Shapiro S, et al. Making health promotion evidenced-informed: an organizational priority. *Health Promotion Practice* 2013;14(1):139-45.
49. Dobbins M, Robeson P, Ciliska D, et al. A description of a knowledge broker role implemented as part of a randomized controlled trial evaluating three knowledge translation strategies. *Implement Sci* 2009;4:23.
50. Dobbins M, Hanna S, Ciliska D, et al. A randomized controlled trial evaluating the impact of knowledge translation and exchange strategies. *Implement Sci* 2009;4(1):61.
51. Dogherty E, Harrison M, Graham I. Facilitation as a role and process in achieving evidence based practice in nursing: a focused review of concept and meaning. *Worldviews Evid Based Nurs* 2010;7(2):76-89.
52. Harvey G, Loftus-Hills A, Rycroft-Malone J, et al. Getting evidence into practice: the role and function of facilitation. *J Adv Nurs* 2002;37(6):577-88.
53. Dogherty EJ, Harrison MB, Baker C, et al. Following a natural experiment of guideline adaptation and early implementation: a mixed-methods study of facilitation. *Implement Sci* 2012;7:9.

54. Dogherty EJ, Harrison MB, Graham ID, et al. Turning Knowledge Into Action at the Point-of-Care: The Collective Experience of Nurses Facilitating the Implementation of Evidence-Based Practice. *Worldviews on Evidence-Based Nursing* 2013;10(3):129-39.
55. Dogherty EJ, Harrison M, Graham I, et al. Examining the use of facilitation within guideline dissemination and implementation studies in nursing. *International Journal of Evidence-Based Healthcare* 2014;12(2):105-27.
56. Doran DM, Sidani S. Outcomes-focused knowledge translation: a framework for knowledge translation and patient outcomes improvement. *Worldviews Evid Based Nurs* 2007;4(1):3-13.
57. Doumit G, Gattellari M, Grimshaw J, et al. Local opinion leaders: effects on professional practice and health care outcomes. *Cochrane Database Syst Rev* 2007; (1).
<http://www.mrw.interscience.wiley.com/cochrane/clsystrev/articles/CD000125/frame.html>.
58. Drake DB. Evidence is a verb: a relational approach to knowledge and mastery in coaching. *International Journal of Evidence Based Coaching and Mentoring* 2009;7(1):1-12.
59. Due TD, Thorsen T, Kousgaard MB, et al. The effectiveness of a semi-tailored facilitator-based intervention to optimise chronic care management in general practice: a stepped-wedge randomised controlled trial. *BMC Family Practice* 2014;15(1):65.
60. Eaton E, Henderson A, Winch S. Enhancing nurses' capacity to facilitate learning in nursing students: effective dissemination and uptake of best practice guidelines. *Int J Nurs Pract* 2007;13(5):316-20.
61. Edwards A, Rhydderch M, Engels Y, et al. Assessing organisational development in European primary care using a group-based method. *Int J Health Care Qual Assur* 2010;23(1):8.
62. Ellis I, Howard P, Larson A, et al. From workshop to work practice: an exploration of context and facilitation in the development of evidence-based practice. *Worldviews Evid Based Nurs* 2005;2(2):84-93.

63. Ellis JA, McCleary L, Blouin R, et al. Implementing best practice pain management in a pediatric hospital. *J Spec Pediatr Nurs* 2007;12(4):264-77.
64. Elnitsky CA, Powell-Cope G, Besterman-Dahan KL, et al. Implementation of Safe Patient Handling in the U.S. Veterans Health System: A Qualitative Study of Internal Facilitators' Perceptions. *Worldviews on Evidence-Based Nursing* 2015;12(4):208-16.
65. Elwyn G, Hocking P, Burtonwood A, et al. Learning to plan? A critical fiction about the facilitation of professional and practice development plans in primary care. *J Interprof Care* 2002;16(4):349-58.
66. Engels Y, van den Hombergh P, Mokkink H, et al. The effects of a team-based continuous quality improvement intervention on the management of primary care: a randomised controlled trial. *Br J Gen Pract* 2006;56(531):781-7.
67. English M, Nzinga J, Mbindyo P, et al. Explaining the effects of a multifaceted intervention to improve inpatient care in rural Kenyan hospitals--interpretation based on retrospective examination of data from participant observation, quantitative and qualitative studies. *Implement Sci* 2011;6:124.
68. Ervin NE. Clinical coaching: a strategy for enhancing evidence-based nursing practice. *Clin Nurse Spec* 2005;19(6):296-301.
69. Eskicioglu C, Pearsall E, Victor JC, et al. A Multifaceted Knowledge Translation Strategy Can Increase Compliance with Guideline Recommendations for Mechanical Bowel Preparation. *Journal of Gastrointestinal Surgery* 2015;19(1):39-45.
70. Pathman DE, Konrad TR, Freed GI, et al. The awareness-to-adherence model of the steps to clinical guideline compliance: The case of pediatric vaccine recommendations. *Medical Care* 1996;34(9):873-89.
71. Ferguson L, Milner M, Snelgrove-Clark E. The role of intermediaries: getting evidence into practice. *J Wound Ostomy Continence Nurs* 2004;31(6):325-7.

72. Fielden SL, Davidson MJ, Sutherland VJ. Innovations in coaching and mentoring: implications for nurse leadership development. *Health Serv Manage Res* 2009;22(2):92-9.
73. Fineout-Overholt E, Levin RF, Melnyk BM. Strategies for advancing evidence-based practice in clinical settings. *J N Y State Nurses Assoc* 2004;35(2):28-32.
74. Fineout-Overholt E, Melnyk BM, Schultz A. Transforming health care from the inside out: advancing evidence-based practice in the 21st century. *J Prof Nurs* 2005;21(6):335-44.
75. Flodgren G, Parmelli E, Doumit G, et al. Local opinion leaders: effects on professional practice and health care outcomes. *Cochrane Database Syst Rev* 2011;8:CD000125.
76. Foley KL, Pockey JR, Helme DW, et al. Integrating evidence-based tobacco cessation interventions in free medical clinics: opportunities and challenges. *Health Promot Pract* 2012;13(5):687-95.
77. Frantsve-Hawley J, Meyer DM. The evidence-based dentistry champions: a grassroots approach to the implementation of EBD. *J Evid Based Dent Pract* 2008;8(2):64-9.
78. French B. Contextual factors influencing research use in nursing. *Worldviews Evid Based Nurs* 2005;2(4):172-83.
79. Friedman L, Engelking C, Wickham R, et al. The EDUCATE Study: a continuing education exemplar for Clinical Practice Guideline Implementation. *Clin J Oncol Nurs* 2009;13(2):219-30.
80. García-Elorrio E, Aleman A, Cafferata ML, et al. A multifaceted intervention to increase prophylactic oxytocin use during the third stage of labor and to reduce routine episiotomies in Nicaragua. *International Journal of Gynecology and Obstetrics*;127(1):31-34.
81. Gerrish K, McDonnell A, Nolan M, et al. The role of advanced practice nurses in knowledge brokering as a means of promoting evidence-based practice among clinical nurses. *J Adv Nurs* 2011;67(9):2004-14.
82. Gerrish K, Nolan M, McDonnell A, et al. Factors influencing advanced practice nurses' ability to promote evidence-based practice among frontline nurses. *Worldviews Evid Based Nurs* 2012;9(1):30-9.

83. Gerrish K, Laker S, Taylor C, et al. Enhancing the quality of oral nutrition support for hospitalized patients: a mixed methods knowledge translation study (The EQONS study). *Journal of Advanced Nursing* 2016;72(12):3182-94.
84. Graham ID, Logan J, Harrison MB, et al. Lost in knowledge translation: Time for a map? *Journal of Continuing Education in the Health Professions* 2006;26(1):13-24.
85. Gibson M, Woodbury MG, Hay K. Changing pain assessment and management practices in residential care settings using the "readiness for change" model. *Can Geriatr J* 2008;11(2):94-8.
86. Goldberg HI, Wagner EH, Fihn SD, et al. A randomized controlled trial of CQI teams and academic detailing: can they alter compliance with guidelines? *Jt Comm J Qual Improv* 1998;24(3):130-42.
87. Gotlib Conn L, McKenzie M, Pearsall EA, et al. Successful implementation of an enhanced recovery after surgery programme for elective colorectal surgery: a process evaluation of champions' experiences. *Implementation Science* 2015;10(1):99.
88. May CR, Mair F, Finch T, et al. Development of a theory of implementation and integration: Normalization Process Theory. *Implementation Science* 2009;4(1):29.
89. Graham ID, Harrison MB, Brouwers M, et al. Facilitating the use of evidence in practice: evaluating and adapting clinical practice guidelines for local use by health care organizations. *J Obstet Gynecol Neonatal Nurs* 2002;31(5):599-611.
90. Grimshaw JM, Eccles MP, Greener J, et al. Is the involvement of opinion leaders in the implementation of research findings a feasible strategy? *Implement Sci* 2006;1:3.
91. Grimshaw JM, Eccles MP, Lavis JN, et al. Knowledge translation of research findings. *Implement Sci* 2012;7:50.
92. Grol R, Grimshaw J. Evidence-based implementation of evidence-based medicine. *Jt Comm J Qual Improv* 1999;25(10):503-13.

93. Guihan M, Bosshart HT, Nelson A. Lessons learned in implementing SCI clinical practice guidelines. *SCI Nurs* 2004;21(3):136-42.
94. Gurzick M, Kesten KS. The impact of clinical nurse specialists on clinical pathways in the application of evidence-based practice. *J Prof Nurs* 2010;26(1):42-8.
95. Hadjistavropoulos T, Williams J, Kaasalainen S, et al. Increasing the Frequency and Timeliness of Pain Assessment and Management in Long-Term Care: Knowledge Transfer and Sustained Implementation. *Pain Research and Management* 2016;2016:Article ID 6493463.
96. Damschroder LJ, Aron DC, Keith RE, et al. Fostering implementation of health services research findings into practice: a consolidated framework for advancing implementation science. *Implementation Science* 2009;4(1):50.
97. Hak E, Hermens RP, Hoes AW, et al. Effectiveness of a co-ordinated nation-wide programme to improve influenza immunisation rates in the Netherlands. *Scand J Prim Health Care* 2000;18(4):237-41.
98. Harrison LL, Kitchens EK. Implementing the research facilitator role. *Nurse Educ* 1989;14(5):21-6.
99. Harrison MB, Graham ID, van den Hoek J, et al. Guideline adaptation and implementation planning: a prospective observational study. *Implement Sci* 2013;8:49.
100. Harvey G, Fitzgerald L, Fielden S, et al. The NIHR collaboration for leadership in applied health research and care (CLAHRC) for greater Manchester: combining empirical, theoretical and experiential evidence to design and evaluate a large-scale implementation strategy. *Implement Sci* 2011;6:96.
101. Langley GJ, Nolan G, Norman CL, et al. *The Improvement Guide*. San Francisco: Jossey-Bass 1996.
102. Harvey G, Kitson A, Munn Z. Promoting continence in nursing homes in four European countries: the use of PACES as a mechanism for improving the uptake of evidence-based recommendations. *Int J Evid Based Healthc* 2012;10(4):388-96.

103. Harvey G, Oliver K, Humphreys J, et al. Improving the identification and management of chronic kidney disease in primary care: lessons from a staged improvement collaborative. *International Journal for Quality in Health Care* 2015;27(1):10-16.
104. Hayes E, McCahon C, Panahi MR, et al. Alliance not compliance: coaching strategies to improve type 2 diabetes outcomes. *J Am Acad Nurse Pract* 2008;20(3):155-62.
105. Prochaska J, Norcross J, DiClemente C. *Changing for good*. New York: Harper-Collins 1995.
106. Hemsley-Brown J. Facilitating research utilisation: a cross-sector review of research evidence. *The International Journal of Public Sector Management* 2004;17(6/7):534.
107. Hogg W, Baskerville N, Nykiforuk C, et al. Improved preventive care in family practices with outreach facilitation: understanding success and failure. *J Health Serv Res Policy* 2002;7(4):195-201.
108. Hogg W, Lemelin J, Graham I, et al. Improving prevention in primary care: evaluating the effectiveness of outreach facilitation. *Fam Pract* 2008;25(1):40-8.
109. Hogg W, Lemelin J, Moroz I, et al. Improving prevention in primary care: evaluating the sustainability of outreach facilitation.[Erratum appears in Can Fam Physician. 2008 Jun;54(6):851]. *Can Fam Physician* 2008;54(5):712-20.
110. Hohlfelder B, Kubiak DW, Degrado JR, et al. Implementation of a Prolonged Infusion Guideline for Time-Dependent Antimicrobial Agents at a Tertiary Academic Medical Center. *Am J Ther* 2016;23(6):e1768-e73.
111. Holtrop JS, Baumann J, Arnold AK, et al. Nurses as practice change facilitators for healthy behaviors. *J Nurs Care Qual* 2008;23(2):123-31.
112. Hulscher ME, van Drenth BB, van der Wouden JC, et al. Changing preventive practice: a controlled trial on the effects of outreach visits to organise prevention of cardiovascular disease. *Qual Health Care* 1997;6(1):19-24.

113. Hung DY, Glasgow RE, Dickinson L, et al. The chronic care model and relationships to patient health status and health-related quality of life. *Am J Prev Med* 2008;35(5, Suppl 1):S398-S406.
114. Wagner EH, Davis C, Schaefer J, et al. A survey of leading chronic disease management programs: Are they consistent with the literature? *Manag Care Q* 1999;7:56-66.
115. Jamerson PA, Vermeersch P. The role of the nurse research facilitator in building research capacity in the clinical setting. *J Nurs Adm* 2012;42(1):21-7.
116. Janes N, Fox M, Lowe M, et al. Facilitating best practice in aged care: exploring influential factors through critical incident technique. *Int J Older People Nurs* 2009;4(3):166-76.
117. Jarman HJ. Sharing expertise--using clinical nursing rounds to improve UK emergency nursing practice. *Australas Emerg Nurs J* 2009;12(3):73-7.
118. Jeffers BR, Robinson S, Luxner K, et al. Nursing faculty mentors as facilitators for evidence-based nursing practice. *J Nurses Staff Dev* 2008;24(5).
119. Holden LM. Complex adaptive systems: Concept analysis. *Journal of Advanced Nursing* 2005;52(6):651-57.
120. Rowe A, Hogarth A. Use of complex adaptive systems metaphor to achieve professional and organizational change. *Journal of Advanced Nursing* 2005;51(4):396-405.
121. Sibthorpe B, Glasgoa N, Longstaff D. Complex adaptive systems: A different way of thinking about health care systems. *Australian Primary Health Care Research Institute*. 2004.
122. Kaasalainen S, Ploeg J, Donald F, et al. Positioning Clinical Nurse Specialists and Nurse Practitioners as Change Champions to Implement a Pain Protocol in Long-Term Care. *Pain Manag Nurs*;16(2):78-88.
123. Graham ID, Logan J. Innovations in Knowledge Transfer and Continuity of Care. *CJNR (Canadian Journal of Nursing Research)* 2004;36(2):89-103.
124. Kajermo KN, Nordstrom G, Krusebrant A, et al. Nurses' experiences of research utilization within the framework of an educational programme. *J Clin Nurs* 2001;10(5):671-81.

125. Warren JJ, Heermann JA. The research nurse intern program. A model for research dissemination and utilization. *Journal of Nursing Administration* 1998;28:39-45.
126. Kavanagh T, Watt-Watson J, Stevens B. An examination of the factors enabling the successful implementation of evidence-based acute pain practices into pediatric nursing. *Child Health Care* 2007;36(3):303-21.
127. Kelly D, Simpson S, Brown P. An action research project to evaluate the clinical practice facilitator role for junior nurses in an acute hospital setting. *J Clin Nurs* 2002;11(1):90-8.
128. Kitson A, Harvey G, McCormack B. Enabling the implementation of evidence based practice: a conceptual framework. *Qual Health Care* 1998;7(3):149-58.
129. Heron K. *The facilitator's handbook*. London: Kogan Page. 1989.
130. Kitson AL, Rycroft-Malone J, Harvey G, et al. Evaluating the successful implementation of evidence into practice using the PARiHS framework: theoretical and practical challenges. *Implement Sci* 2008;3:1.
131. Kitson AL, Harvey G. Methods to Succeed in Effective Knowledge Translation in Clinical Practice. *Journal of Nursing Scholarship* 2016;48(3):294-302.
132. Kousgaard MB, Thorsen T. Positive experiences with a specialist as facilitator in general practice. *Dan Med J* 2012;59(6):A4443.
133. Lekalakala-Mokgele E, du Rand PP. A model for facilitation in nursing education. *Curationis* 2005;28(2):22-9.
134. Lemelin J, Hogg W, Baskerville N. Evidence to action: a tailored multifaceted approach to changing family physician practice patterns and improving preventive care. *CMAJ* 2001;164(6):757-63.
135. Liddy C, Laferriere D, Baskerville B, et al. An overview of practice facilitation programs in Canada: current perspectives and future directions. *Healthc Policy* 2013;8(3):58-67.
136. Lindenfeld S, Vlcek D. Engaging physicians in continuous quality improvement. *Adv Ren Replace Ther* 2001;8(2):120-4.

137. Linnebur SA, Fish DN, Ruscin JM, et al. Impact of a multidisciplinary intervention on antibiotic use for nursing home-acquired pneumonia. *Am J Geriatr Pharmacother* 2011;9(6):442-50.
138. Locca J-F, Ruggli M, Buchmann M, et al. Development of pharmaceutical care services in nursing homes: practice and research in a Swiss canton. *Pharm World Sci* 2009;31(2):165-73.
139. Holland RW, Nimmo CM. Transitions in pharmacy practice, part 3: Effecting change- the three-ring circus. *Am J Health Syst Pharm* 1999;56:2235-41.
140. Locock L, Dopson S, Chambers D, et al. Understanding the role of opinion leaders in improving clinical effectiveness. *Soc Sci Med* 2001;53(6):745-57.
141. Logan J, Davies B. The staff nurse as research facilitator. *Can J Nurs Adm* 1995;8(1):92-110.
142. Lomas J, Enkin M, Anderson GM, et al. Opinion leaders vs audit and feedback to implement practice guidelines. Delivery after previous cesarean section. *JAMA* 1991;265(17):2202-7.
143. Lombarts M, Klazinga N, Redekop K. Measuring the perceived impact of facilitation on implementing recommendations from external assessment: lessons from the Dutch visitatie programme for medical specialists. *J Eval Clin Pract* 2005;11(6):587-97.
144. MacIntosh-Murray A, Choo CW. Information behavior in the context of improving patient safety. *J Am Soc Inf Sci Technol* 2005;56(12):1332-45.
145. Mader EM, Fox CH, Epling JW, et al. A Practice Facilitation and Academic Detailing Intervention Can Improve Cancer Screening Rates in Primary Care Safety Net Clinics. *The Journal of the American Board of Family Medicine* 2016;29(5):533-42.
146. Majumdar SR, Tsuyuki RT, McAlister FA. Impact of opinion leader-endorsed evidence summaries on the quality of prescribing for patients with cardiovascular disease: a randomized controlled trial. *Am Heart J* 2007;153(1):22.e1-8.
147. Markey P, Schattner P. Promoting evidence-based medicine in general practice: the impact of academic detailing. *Fam Pract* 2001;18(4):364-6.

148. Matthew-Maich N, Ploeg J, Jack S, et al. Leading on the frontlines with passion and persistence: a necessary condition for Breastfeeding Best Practice Guideline uptake. *J Clin Nurs* 2013;22(11/12):1759-70.
149. McCleary L, Ellis JA, Rowley B. Evaluation of the pain resource nurse role: a resource for improving pediatric pain management. *Pain Manag Nurs* 2004;5(1):29-36.
150. McWilliam CL, Kothari A, Ward-Griffin C, et al. Evolving the theory and praxis of knowledge translation through social interaction: a social phenomenological study. *Implement Sci* 2009;4(1).
151. Mellor F, Foley T, Connolly M, et al. Role of a clinical facilitator in introducing an integrated care pathway for the care of the dying. *Int J Palliat Nurs* 2004;10(10):497-501.
152. Michael R. Facilitating nursing research: a professional mandate for perioperative nurses. *ACORN* 2007;19(1):18-22.
153. Miller WR, Sorensen JL, Selzer JA, et al. Disseminating evidence-based practices in substance abuse treatment: a review with suggestions. *J Subst Abuse Treat* 2006;31(1):25-39.
154. Minnick A, Catrambone CD, Halstead L, et al. A nurse coach quality improvement intervention: feasibility and treatment fidelity. *West J Nurs Res* 2008;30(6):690-703.
155. Mold JW, Aspy CA, Nagykaldis Z. Implementation of evidence-based preventive services delivery processes in primary care: an Oklahoma Physicians Resource/Research Network (OKPRN) study. *J Am Board Fam Med* 2008;21(4):334-44.
156. Moriarty D, O'Hara A, Byron S. Macmillan nurse facilitators for palliative care: evaluation of a pilot project. *Int J Palliat Nurs* 2007;13(7):334-43.
157. Muller A, McCauley K, Harrington P, et al. Evidence-based practice implementation strategy: the central role of the clinical nurse specialist. *Nurs Adm Q* 2011;35(2):140-51.
158. Nagykaldis Z, Mold JW, Aspy CB. Practice facilitators: a review of the literature. *Fam Med* 2005;37(8):581-8.

159. Nagykaldi Z, Mold JW, Robinson A, et al. Practice facilitators and practice-based research networks. *J Am Board Fam Med* 2006;19(5):506-10.
160. Newton JM. Developing facilitation skills--a narrative. *Collegian* 2003;10(3):27-30.
161. McGill I, Beaty L. *Active learning*. London: Kogan Page 2001.
162. O'Brien M, Rogers S, Jamtvedt G, et al. Educational outreach visits: effects on professional practice and health care outcomes (Review). *Cochrane Database Syst Rev* 2008;4.
163. Olson CA, Tooman TR, Alvarado CJ. Knowledge systems, health care teams, and clinical practice: a study of successful change. *Adv Health Sci Educ Theory Pract* 2010:1-26.
164. Engel PGH. *The social organization of innovation: A focus on stakeholder interaction*. Amsterdam, Netherlands: KIT Press 1997.
165. Pannucci CJ, Jaber RM, Zumsteg JM, et al. Changing practice: implementation of a venous thromboembolism prophylaxis protocol at an academic medical center. *Plast Reconstr Surg* 2011;128(5):1085-92.
166. Parchman ML, Noel PH, Culler SD, et al. A randomized trial of practice facilitation to improve the delivery of chronic illness care in primary care: initial and sustained effects. *Implementation Science* 2013;8(1):93.
167. Coleman K, Austin BT, Brach C, et al. Evidence On The Chronic Care Model In The New Millennium. *Health Affairs* 2009;28(1):75-85.
168. Pattinson RC, Arsalo I, Bergh AM, et al. Implementation of kangaroo mother care: a randomized trial of two outreach strategies. *Acta Paediatr* 2005;94(7):924-7.
169. Penz KL, Bassendowski SL. Evidence-based nursing in clinical practice: implications for nurse educators. *J Contin Educ Nurs* 2006;37(6):251-6.
170. Pepler CJ, Edgar L, Frisch S, et al. Strategies to increase research-based practice: interplay with unit culture. *Clin Nurse Spec* 2006;20(1):23-31.

171. Pereles L, Lockyer J, Ryan D, et al. The use of the opinion leader in continuing medical education. *Med Teach* 2003;25(4):438-41.
172. Petrova M, Dale J, Munday D, et al. The role and impact of facilitators in primary care: findings from the implementation of the Gold Standards Framework for palliative care. *Fam Pract* 2010;27(1):38-47.
173. Plamondon K, Ronquillo C, Axen L, et al. Bridging Research and Practice through the Nursing Research Facilitator Program in British Columbia. *Nursing Leadership* 2013;26(4):32-43.
174. Ploeg J, Davies B, Edwards N, et al. Factors influencing best-practice guideline implementation: lessons learned from administrators, nursing staff, and project leaders. *Worldviews Evid Based Nurs* 2007;4(4):210-19.
175. Ploeg J, Skelly J, Rowan M, et al. The role of nursing best practice champions in diffusing practice guidelines: a mixed methods study. *Worldviews Evid Based Nurs* 2010;7(4):238-51.
176. Purvis T, Moss K, Denisenko S, et al. Implementation of evidence-based stroke care: enablers, barriers, and the role of facilitators. *Journal of Multidisciplinary Healthcare* 2014;7:389-400.
177. Ragazzi H, Keller A, Ehrensberger R, et al. Evaluation of a practice-based intervention to improve the management of pediatric asthma. *J Urban Health* 2011;88(S1):38-48.
178. Reynolds SS, Murray LL, McLennon SM, et al. Implementation of a Stroke Competency Program to Improve Nurses' Knowledge of and Adherence to Stroke Guidelines. *Journal of Neuroscience Nursing* 2016;48(6):328-35.
179. Robinson J. Improving practice through a system of clinical supervision. *Nurs Times* 2005;101(23):30-2.
180. Routhieaux RL, Higgins SE. Best-practice guidelines for utilizing facilitators. *Health Care Superv* 1999;17(3):1-10.
181. Ruetz JP. Enabling frontline participation to create a quality improvement culture. *Healthc Manage Forum* 2007;20(3):53-8.

182. Rugh JD, Sever N, Glass BJ, et al. Transferring evidence-based information from dental school to practitioners: a pilot "academic detailing" program involving dental students. *J Dent Educ* 2011;75(10):1316-22.
183. Russell-Babin KA. Calling all opinion leaders! Keys to the diffusion of evidence. *Nurs Manage* 2010;41(9):8-11.
184. Rycroft-Malone J, Kitson A, Harvey G, et al. Ingredients for change: revisiting a conceptual framework. *Qual Saf Health Care* 2002;11(2):174-80.
185. Rycroft-Malone J, Harvey G, Kitson A, et al. Getting evidence into practice: ingredients for change. *Nurs Stand* 2002;16(37):38-43.
186. Rycroft-Malone J, Harvey G, Seers K, et al. An exploration of the factors that influence the implementation of evidence into practice. *J Clin Nurs* 2004;13(8):913-24.
187. Rycroft-Malone J. The PARIHS Framework—a framework for guiding the implementation of evidence-based practice. *J Nurs Care Qual* 2004;19(4):297-304.
188. Rycroft-Malone J, Seers K, Crichton N, et al. A pragmatic cluster randomised trial evaluating three implementation interventions. *Implement Sci* 2012;7:80.
189. Rycroft-Malone J, Seers K, Chandler J, et al. The role of evidence, context, and facilitation in an implementation trial: implications for the development of the PARIHS framework. *Implement Sci* 2013;8:28.
190. Sacco TL, LaRicca B. Interprofessional Implementation of a Pain/Sedation Guideline on a Trauma Intensive Care Unit. *Journal of Trauma Nursing* 2016;23(3):156-64.
191. Schleifer Taylor J, Verrier MC, Landry MD. What Do We Know about Knowledge Brokers in Paediatric Rehabilitation? A Systematic Search and Narrative Summary. *Physiotherapy Canada* 2014;66(2):143-52.

192. Shifaza F, Evans D, Bradley H, et al. Developing evidence-based practice champions in the Maldives. *International Journal of Nursing Practice* 2013;19(6):596-602.
193. Reason P, Bradbury H. *Handbook of Action Research: The Concise Paperback Edition*. Thousand Oaks, CA: Sage 2006.
194. Shipman C, Addington-Hall J, Thompson M, et al. Building bridges in palliative care: evaluating a GP facilitator programme. *Palliat Med* 2003;17(7):621-7.
195. Shirey MR. Evidence-based practice: how nurse leaders can facilitate innovation. *Nurs Adm Q* 2006;30(3):252-65.
196. Shortell SM, Marsteller JA, Lin M, et al. The role of perceived team effectiveness in improving chronic illness care. *Med Care* 2004;42(11):1040-8.
197. Siddiqi K, Newell J, Robinson M. Getting evidence into practice: what works in developing countries? *Int J Qual Health Care* 2005;17(5):447-53.
198. Siegel D, Lopez J, Meier J, et al. Academic detailing to improve antihypertensive prescribing patterns. *Am J Hypertens* 2003;16(6):508-11.
199. Simpson F, Doig GS. The relative effectiveness of practice change interventions in overcoming common barriers to change: a survey of 14 hospitals with experience implementing evidence-based guidelines. *J Eval Clin Pract* 2007;13(5):709-15.
200. Sipilä R, Ketola E, Tala T, et al. Facilitating as a guidelines implementation tool to target resources for high risk patients - The Helsinki Prevention Programme (HPP). *J Interprof Care* 2008;22(1):31-44.
201. Soumerai SB. Principles and uses of academic detailing to improve the management of psychiatric disorders. *Int J Psychiatry Med* 1998;28(1):81-96.
202. Stenger K, Schooley K, Moss L. Moving to evidence-based practice for pain management in the critical care setting. *Crit Care Nurs Clin North Am* 2001;13(2):319-27.

203. Stetler CB, Legro MW, Rycroft-Malone J, et al. Role of "external facilitation" in implementation of research findings: a qualitative evaluation of facilitation experiences in the Veterans Health Administration. *Implement Sci* 2006;1:23.
204. Stetler CB, Damschroder LJ, Helfrich CD, et al. A guide for applying a revised version of the PARIHS framework for implementation. *Implement Sci* 2011;6:99.
205. Sullivan G, Duan N, Mukherjee S, et al. The role of services researchers in facilitating intervention research. *Psychiatr Serv* 2005;56(5):537-42.
206. Taylor EF, Machta RM, Meyers DS, et al. Enhancing the Primary Care Team to Provide Redesigned Care: The Roles of Practice Facilitators and Care Managers. *The Annals of Family Medicine* 2013;11(1):80-83.
207. Thompson GN, Estabrooks CA, Degner LF. Clarifying the concepts in knowledge transfer: a literature review. *J Adv Nurs* 2006;53(6):691-701.
208. Tjia J, Field T, Mazor K, et al. Dissemination of Evidence-Based Antipsychotic Prescribing Guidelines to Nursing Homes: A Cluster Randomized Trial. *Journal of the American Geriatrics Society* 2015;63(7):1289-98.
209. Glasgow RE, Klesges LM, Dzewaltowski DA, et al. Evaluating the impact of health promotion programs: using the RE-AIM framework to form summary measures for decision making involving complex issues. *Health Education Research* 2006;21(5):688-94.
210. van der Zijpp TJ, Niessen T, Eldh AC, et al. A Bridge Over Turbulent Waters: Illustrating the Interaction Between Managerial Leaders and Facilitators When Implementing Research Evidence. *Worldviews on Evidence-Based Nursing* 2016;13(1):25-31.
211. Varnell G, Haas B, Duke G, et al. Effect of an educational intervention on attitudes toward and implementation of evidence-based practice. *Worldviews Evid Based Nurs* 2008;5(4):172-81.
212. Vaughan C, Reddy P, Dunbar J. From rural beginnings to statewide roll-out: evaluation of facilitator training for a group-based diabetes prevention program. *Aust J Rural Health* 2010;18(2):59-65.

213. Wadhwa A, Ford-Jones EL, Lingard L. A qualitative study of interphysician telephone consultations: extending the opinion leader theory. *J Contin Educ Health Prof* 2005;25(2):98-104.
214. Wallin L, Rudberg A, Gunningberg L. Staff experiences in implementing guidelines for Kangaroo Mother Care: a qualitative study. *Int J Nurs Stud* 2005;42(1):61-73.
215. Waters D, Rychetnik L, Crisp J, et al. Views on evidence from nursing and midwifery opinion leaders. *Nurse Educ. Today* 2009;29(8):829-34.
216. Wilkinson JE, Nutley SM, Davies HTO. An exploration of the roles of nurse managers in evidence-based practice implementation. *Worldviews Evid Based Nurs* 2011;8(4):236-46.
217. Wiechula R, Kitson A, Marcoionni D, et al. Improving the fundamentals of care for older people in the acute hospital setting: facilitating practice improvement using a Knowledge Translation Toolkit. *Int J Evid Based Healthc* 2009;7(4):283-95.
218. Wright N. First-time knowledge brokers in health care: the experiences of nurses and allied health professionals of bridging the research-practice gap. *Evidence & Policy: A Journal of Research, Debate and Practice* 2013;9(4):557-70.
219. Young JM, Hollands MJ, Ward J, et al. Role for opinion leaders in promoting evidence-based surgery. *Arch Surg* 2003;138(7):785-91.